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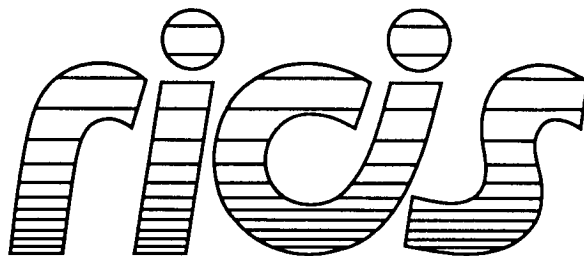
# ***Group Support Systems (GSS)***

***June 1995 - May 1996***

**Gary P. Hamel  
Ravin Wijesinghe  
University of Houston-Clear Lake**

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*Research Institute for Computing and Information Systems  
University of Houston-Clear Lake*

## **RICIS Preface**

RICIS activity numbers IR.01C "Group Support Systems" and IR.13A "360 Degree Groupware Survey" were conducted under auspices of the Research Institute for Computing and Information Systems by Gary P. Hamel of the University of Houston-Clear Lake. RICIS student Research Assistants Ravin Wijesinghe and Siromi DeSilva contributed support for these activities. This is the final report for activity IR.01C. The contract for activity IR.13A is scheduled to conclude on 8/31/96 and any outstanding deliverables are due on that date.

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The views and conclusions contained in this report are those of the authors and should not be interpreted as representative of the official policies, either express or implied, of UHCL, RICIS, NASA or the United States Government.

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## **APPENDICES**

**Appendix A through appendix C: 360 Degree Groupware Survey**

**A: Summer 1995**

**B: Spring 1996**

**C: Spring 1996 Peer Evaluation Schedule**

**Appendix One through Appendix Five: Group Support Systems**

# 1. Introduction and Background

Groupware is a term describing an emerging computer software technology enhancing the ability of people to work together as a group, (a software driven "group support system"). This project originated at the beginning of 1992 and RICIS reports were issued describing the activity through May, 1995. These reports stressed the need for process as well as technology. That is, while the technology represented a computer assisted method for groups to work together, the Group Support Systems (GSS) technology also required an understanding of the *facilitation process* electronic meetings demand. Even people trained in traditional facilitation techniques did not necessarily painlessly adopt groupware techniques<sup>1</sup>. The latest phase of this activity attempted to 1) improve the facilitation process by developing training support for a portable groupware computer system, and 2) to explore settings and uses for the portable groupware system using different software, such as Lotus Notes. Below summarizes the groupware related RICIS activities.

## Phase I: June 1992 - May 1994

- > Established a research activity between NASA/JSC and RICIS to study how groupware software could improve productivity and stimulate team building (RICIS IR01.B, "Group Decision Support Requirements Review"-- 6/1/92-5/31/94)
- > Completed survey of the field
- > Recommendations issued by a Project Management Team
- > Drafted requirements for a decision support and groupware facility housed at the University of Houston-Clear Lake
- > Accomplished establishment of a groupware meeting room at UHCL
- > Studied various methods of accomplishing electronic meetings
- > Adopted the "Interaction Method." of process facilitation (The Interaction Method is based on the notion of shared responsibility as a result of a collaborative attitude, strategic thinking, and facilitative behavior.)
- > Held pilot sessions with NASA/JSC and UHCL groups
- > Issued a final report

## Phase II: June 1994 - May 1995

- > RICIS continued operating the UHCL groupware meeting room
- > Established a research activity with NASA/JSC studying Group Support Systems (RICIS IR01.C, "Group Support Systems"--1/1/95-5/31/96)
- > Purchased a portable computer system capable of bringing the meeting to any room accomplished
- > Identified JSC personnel to participate in training sessions
- > Planned and held NASA focus group sessions
- > Presentations were given to upper-level managers

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<sup>1</sup> Group Decision Support Requirements Review, (Gary Hamel, Charles Hardwick, Ravin Wijesinghe, June, 1994) and Group Support Systems June 1994 - May 1995, (Gary Hamel, Charles Hardwick, Judy Solecki, March, 1996).

- > Training classes held for JSC and UHCL personnel in conjunction with a groupware software vendor and a meeting process improvement consulting firm
- > Issued a final report

### **Phase III: June 1995- May 1996**

- > Moved the UHCL groupware facility from UHCL's Bayou Building to UHCL's Delta Building
- > Continued operating the UHCL groupware meeting room
- > Established a research activity and conducted JSC Lotus Notes surveys using the portable groupware computer system (IR13.A, "360 Degree Groupware Survey"-- 12/1/95-8/31/96))
- > Produced a training support handbook for the portable GSS system
- > Developed a groupware and GroupSystems for Windows training aid consisting of thirteen computer disks and a script
- > Issued a final report

## **2. The Lotus Notes Groupware Survey <sup>2</sup>**

### **2.1 Background, Objectives and Overview**

Employee performance review is a commonplace procedure in most organizations. Historically, a performance review consists of a supervisor evaluating a subordinate. More recently, though, survey methods to obtain a wider evaluation of an employee from co-workers and customers have emerged. These are called *360 degree performance reviews* or *360-degree performance appraisals*.<sup>3</sup> People at NASA were curious if groupware could enhance this peer review process.

NASA/JSC had formerly conducted such evaluation processes using pen and paper. The process included distributing questionnaires, collecting completed forms, compiling data, and distributing the results. However, the user participation and results traditionally obtained had been low.

NASA/JSC was looking for ways to identify issues among the teams working for the Space Station Program Office. To improve team performance and to identify the shortcomings among the members of teams, it was decided to anonymously exchange thoughts, ideas, and suggestions between the team members using groupware. Furthermore, use of groupware aimed to increase user participation to include non contractors in addition to the Space Station Program Office employees. The overall objective was to obtain constructive feedback to improve teamwork.

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<sup>2</sup> Ravin Wijesinghe was the lead writer for this section of this report.

<sup>3</sup> See: <http://deming.eng.clemson.edu/pub/tqmbbs/tools-techs/360pa.txt> , *Companies Evaluate Employees from all Perspectives*, Jayart Kirksey, et. al., an article first published in *Personnel Journal*.

Consequently, a prototype survey session using Lotus Notes, a leading groupware software, was held in the Summer, 1995. During that time a 360 Degree Peer Evaluation was conducted at the NASA Johnson Space Center's Space Station Program Office, assisted by the Human Resources Development Branch and the Research Institute for Computing and Information Systems (RICIS). The success of that event led to a desire to continue and expand the scope of the activity.

The first survey activity held in the summer, 1995 was a "same place, different time" activity. That is, a networked portable computer system was set up in a room at JSC. The system used a portable server and ten laptop computers. NASA Civil Servants visited the room to complete a questionnaire to evaluate their team members. Although the participants of the survey had mixed reactions, the overall results of the feedback was overwhelming. The support for the teams were considered an essential element in aligning with organization goals, and supporting the peers to identify strengths and weaknesses. Performance feedback obtained were:

- per team member
- per team
- per department/mail code

A second 360 Degree Peer Evaluation was also conducted at the NASA Johnson Space Center's Space Station Program Office, assisted by the Human Resources Development Branch and the Research Institute for Computing and Information Systems (RICIS) in Spring of 1996; user participation was increased to include customers, suppliers, members, and other associated contractors.

### **3. System/Application Requirements**

#### ***3.1 The Summer 1995 360 Degree Peer Evaluation Process***

##### **3.1.1 Requirements**

The application requirements for the Summer 1995, 360 degree peer evaluation process included:

- Easy to use
- A combination of multiple choice, and open ended questions
- Ability for a participant to rate a team member at a convenient time
- Participants may not review his/her or others ratings
- Anonymity
- Ability for a participant to rate a person whom he/she works closely, but is not a team member of a common team
- Ability for participant to keep track of people he or she rated
- Obtain session feedback, when participant has completed evaluating
- Provide a hard copy(paper) of summarized feedback results
  - per team member (to team member & team lead)
  - per team (to team lead & department head)

- per department/mail code as a whole (department head)
- per program as a whole (department head)
- ratings from others not in his/her team (per team member)

### **3.1.2 Assumptions**

The following assumptions were identified and stated prior to developing the system.

- Honor System
  - Participant may not rate him/herself
  - Participant may rate a team member once
  - Participant may not rate members of other teams
- User base
  - Over 340 team members
  - 46 teams
  - 9 Department/mail codes and a category "Other" containing team member names

## **3.2 The Spring 1996 360 Degree Peer Evaluation Process**

### **3.2.1 Requirements**

The application requirements for the Spring 1996, 360 degree peer evaluation process were:

- Easy to use
- A combination of Multiple Choice, [5 point scale], and Open Ended questions.
- Ability for a participant to rate teams and team members at a convenient time
- Participants may not review his/her or others ratings.
- Anonymity
- Include customers, suppliers, members, and other associated contractor types of rator's
- Separation of team and individual evaluations - (different questions based on rator type)
- Ability for a NASA employee to switch between individual evaluations and team evaluations
- Restricting others (non members) from accessing individual evaluation forms (Form access level security using first 6 digits of a person's Social Security number)
- Prevention of self evaluation for team members - (using first 6 digits of a person's Social Security number)
- Ability for participant to keep track of people he or she rated
- Obtain session feedback, when participant has completed evaluating
- Ability to quickly summarize the evaluation forms
- Provide a hard copy (paper) of summarized feedback results for individual evaluations
  - per team member (to team member & team lead)



- per team (to team lead & department head)
- per department/mail code as a whole (department head)
- per program as a whole (department head)
- provide a hard copy (paper) of summarized feedback results for team evaluations
- per team (to team lead & department head)
- per department/mail code as a whole (department head)
- per program as a whole (department head)

### 3.2.2 Assumptions

The following assumptions were identified and stated prior to developing the system.

- Honor System
  - Participant may not rate a team more than once.
- User base
  - Over 340 team members
  - 46 teams
  - 8 Department/mail codes
  - 5 types of rator's (Member of a team, Customers for a team, Suppliers for a team, Others (categorized as non-customers, non-suppliers), Peer to a team member)

## 4. Application Development

GroupSystems for Windows, GroupSystems V, and Lotus Notes were the groupware software packages considered for use in the peer review evaluation process.

### 4.1 *GroupSystems for Windows and GroupSystems V*

*GroupSystems for Windows* was not yet incorporated into the RICIS GSS environment when the peer evaluation project was initiated. *GroupSystems V*, a DOS based application that supports a distributed environment, was considered as a tool to use for the survey. GroupSystems V's survey tool has the capability of obtaining different types of information, e.g., text, multiple choice etc. For example, a single form may be configured to rank order a list of items, select the most suitable item from a list of items (multiple choice), and to obtain open ended answers. The results may be viewed with statistical data which offers a method of identifying consensus<sup>4</sup>.

However, GroupSystems for Windows and GroupSystems V each require a technical facilitator to enable users to access the tools. The first electronic peer evaluation process included two separate questionnaires for two different groups of users (team members and contractors). Using either of the versions of Group Systems software, a technical facilitator would have to start each participant depending on the user category. Evaluating multiple peers would require the facilitator to start sessions multiple times for

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<sup>4</sup> See Group Decision Support Requirements Review, (Gary Hamel, Charles Hardwick, Ravin Wijesinghe, June, 1994) for a review of these tools.

each rator. To accommodate over 340 rators rating multiple peers would not have been practical nor possible within a short period of time (three weeks). In addition, the requirements to summarize data separated by Team Member Name, Team Name, Department, and Program is not supported by either of these software packages.

After review, it was decided that GroupSystems could not support the demands stated in the "requirements" section above. The systems needed to be customized using a distributed environment supporting, secure, easy to use, programmable groupware.

#### **4.2 Lotus Notes**

Lotus Notes proved to be an ideal platform to develop the peer evaluation system since it provided the interface to customize and develop an application according to a set of requirements. Information may be gathered as documents using Forms, and a collection of documents may be summarized and reviewed using Forms or Views (A View summarizes the information in a document in a tabular format).

During the design and development phases, new requirements can be easily included without affecting the data or the rest of the design. Input and output screens can be customized and changed as easily as modifying text using a word processor. The collection of data can be summarized by selecting documents based on search patterns and Forms used. For example, summary of the survey results for "Team X" as evaluated by member of "Team X", or , summary of the survey results for "Team X" as evaluated by "Customer Y". In addition to its distributed accessibility, Lotus Notes also provides security for accessing databases, Forms, Views, documents, fields within a Form, and sections within a Form.

However, Lotus Notes does not offer statistical functions to summarize the data within a Form. Statistical data may be viewed in a tabular format using a View. Therefore, to include statistical information within a form summarizing the documents requires fields to be programmed to calculate such statistical requirements such as mean, standard deviation, etc. (See Appendix, A-3b, for a review of the Summer 1995 Peer Evaluation results; see Appendix B-2b, B-4b, B-5b, B-6b, and B-7b to see the summary of the session evaluations of the Spring 1996 Peer Evaluation Survey)

### **5. General Description of the Process**

The first peer evaluation conducted in the Summer, 1995 was located at a critical geographical location near the elevator to the Space Station Program Office. The participants were restricted to NASA Civil Servants. Process steps required were as follows:

- Participants may walk into the evaluation room and review a list of team names (See Appendix A-2)
  - Select team name and obtain list of team members
    - Select member and obtain an evaluation form to rate. (See Appendix A-3a)

- Rate/answer all questions (open ended was optional) and submit the evaluation
  - Select next member and complete evaluation
- When done with the team, repeat process for other teams
- When survey is completed, provide session evaluation prior to leaving (See Appendix A-4a)

The second phase expanded upon the initial activity in several ways. One significant difference was in the number of participants and the location of the participants. This survey included NASA Civil Servants as well as NASA contracted employees, i.e., Members, Customers, Suppliers, and Others. (See Appendix B-3) The participants resided at the Johnson Space Center and NASA facilities in Washington DC, Alabama and Florida. Nearly 350 NASA Civil Servants and approximately 650 contractor personnel were expected to participate. The same portable computer system that was utilized in the previous survey activity was setup to obtain the evaluations. The location of the system remained in the same room at NASA/JSC. The process steps were expanded as follows:

- Participants may walk into the evaluation room and request for list of team member names (See Appendix B-1) or team names. (See Appendix B-3)
- If the rator is evaluating a team as a Member, Customer, Supplier, or Other,
- Select team name and request for an evaluation form
    - Identify relationship to the team (See Appendix B-3)
    - If Customer, Supplier or Other, identify organization or team of rator
    - Rate/answer all questions (open ended was optional) to the appropriate form given by system, and submit the evaluation (See Appendix B-4a, B-5a, B-6a, B-7a)
  - Select next team name and repeat evaluation process for other teams (If rator relationship changes, obtain new relationship and identify organization or team of rator)

If the rator is evaluating an individual in his/her team,

- Provide Identification by entering the first six digits of the Social Security number
  - Select a team in which the rator is a member and obtain list of team members (rator should not be able to rate teams in which he/she is not a member)
    - Select member and obtain an evaluation form to rate (rator should not be able to rate him/her self) (See Appendix B-2a)
    - Rate/answer all questions (open ended was optional) and submit the evaluation
    - Select next member and complete evaluation
  - When done with the team, repeat process for other teams in which rator is a member
- Rator may switch between team evaluation and individual evaluation.

- When survey is completed, provide session evaluation prior to leaving. (See Appendix B-8a)

The schedule for system design, development and implementation of second peer evaluation schedule is shown in Appendix C).

### **5.1 Development Platform**

Lotus Notes database can contain one gigabyte of information in a single database. Therefore, the size of data generated, ability to do continuous assessment without creating user id's for all participants, manipulation of data according to NASA requirements, not requiring a technical facilitator to enable access to the required forms, possibility to generate/obtain a form for a selected team or individual were factors supporting the use of Lotus Notes as an application development platform.

### **5.2 Summer 1995 360 Degree Peer Evaluation Process**

#### **5.2.1 System Input**

To initialize the system, setup data containing Member Name, Department/mail code, and Team Name were obtained in an EXCEL spreadsheet in column format. The data were directly imported to the Lotus Notes Database.

A total of 8 questions (6 multiple choice, 2 open ended) were formulated. (See Appendix A-3a)

#### **5.2.2 Process Steps (Summer '95)**

The process steps/directions (See Appendix A-1) were defined as follows:

- Use the arrow keys to highlight department/mail code
  - Press an icon (team icon) to view team names
  - Use the arrow keys to highlight teams' name and press an icon to (team icon) view team members
  - To begin rating a team member, use the arrow keys to highlight a name and press an icon (compose icon) to compose an evaluation form
  - Highlight the selected answer to the multiple choice questions and press <enter> or left mouse button to select
- A user may not abstain from answering any of the multiple choice questions, and should not be able to proceed without a choice
- Type response to open-ended questions
- Prompt user if open ended questions are not answered, but may submit only the ratings for the multiple choice questions
- Once survey evaluation form has been filled, submit ratings by pressing an icon (mail icon)
  - Highlight next team member and repeat process
  - Repeat process for other teams in which the rator/participant is listed in
  - Evaluate persons in other teams whom evaluator works closely with, but is not listed as a team member, in department category listed as "OTHER"

- If team or department is unknown, a participant may locate a person by typing the first name, last name or both in the search box
- Once completely finished rating, press walk-away icon to initialize the screen and terminal, and to obtain the session evaluation form

### 5.2.3 Output Requirements

- Feedback data were to be summarized and distributed
  - per team member (to team member & team lead)
  - per team (to team lead & department head)
  - per department/mail code as a whole (department head)
  - per program as a whole (department head)
  - per ratings from others not in his/her team (per team member)

### 5.2.4 Forms Developed

The “**Team Initialization Form**” was created to import data from an Excel spread sheet. The form contained fields such as Member Name, Department/mail code, and Team Name. Names which were not entered/imported from the Excel spreadsheet could be easily entered to the system at time of survey.

The “**Evaluation Form**” contained the questions defined for the survey. The form recorded information such as the team name, department/mail code, the name of the ratee, (if the evaluation was for an individual). In addition, field entries were validated to obtain correct information. The open ended questions were optional. The information recorded from the Evaluation form were maintained in a separate view for summarizing the information for Output Requirements.

“**Feedback Summary Forms**” (Summer ‘95) were created to summarize session responses for distribution among the team members, team leads, and the program manager. In these feedback summary forms:

- Multiple choice questions were rated numerically in relation to its position in the list of choices. (Option 5 was disregarded for evaluation, See Appendix A-3a)
- Statistical information such as number of number of responses for question, mean, standard deviation were calculated
- A descriptive analysis of ratee with respect to the results (mean) was formulated
- Open-ended suggestions/ratings were appended/merged to form a collection of comments

The output requirements included summarizing to provide statistical information, and collecting the open ended answers in paragraph form. (See Appendix A-3b) In addition, the multiple choice questions were programmed to analyze the results, and to provide a general description of the overall result. Thus, a form (**Form to summarize data per department/mail code**) was created to summarize the information by department/mail code. To provide feedback on team performance, all surveys related to each team were summarized using the **form summarizing data per team**. To provide feedback on individual performance, all surveys related to each individual were summarized using a

**form summarizing data per team member from peers.** To provide feedback on individual performance as evaluated by non team members (others), all surveys related to each individual were summarized using a **form summarizing data per team member from others.** A **session evaluation form** was created to obtain an overall review of the survey process. To review the session evaluation form and the results of the session evaluation, refer to Appendix A-4a and A-4b.

### **5.2.5 Views Developed**

The view “**List of department/mail codes**” was created to list the organizations teams, and team members sorted by the department/mail code. The view was created as the defaults view seen by the rators, and to obtain feed back summary, per department. For example, select the department from the list of departments and compose the form “Form to summarize data per department/mail code”. The view “**List of teams**” was created to list the organizations teams, and team members sorted by the team name. The view was created to obtain feed back summary per team. For example, select the team name from the list of teams and compose the form “Form to summarize data per team”. The view “**List of team members**” was created to list the organizations team members sorted by the team member name. The view was created to obtain feed back summary per team member from peers, and per team member from others. For example, select the team name from the list of teams and compose the form “Form to summarize data per team member from peers” or “Form to summarize data per team member from others”.

### **5.2.6 Description of System**

To automate the processes and functionality of the system, five icons were programmed to execute macros and validate entries. (See Appendix A-2) In addition, the system was developed to change the names of the individuals already rated by the rator. Thus, the change in color is a prompt for the rator to identify the individuals or teams already evaluated. The walk away icon was created to automatically obtain a session evaluation form at time of survey completion.

## **5.3 Spring 1996 360 Degree Peer Evaluation Process**

### **5.3.1 System Input**

Building upon the experienced based on the '95 survey, the system input remained the same except for an additional field which was the Social Security number used to fulfill the security requirements stated in the above “Requirements Spring '96” section. A total of five separate questionnaires were formulated to obtain team responses from members, customers, suppliers, others, and individual responses from team members. (See Appendix B-2a, B-4a, B-5a, B-6a, B-7a) The member form contained 13 questions (11 multiple choice, 2 open ended), the customer form contained 10 questions (8 multiple choice, 2 open ended), the supplier form contained 10 questions (8 multiple choice, 2 open ended), the other form contained 10 questions (8 multiple choice, 2 open ended), and the individual form contained 11 questions (9 multiple choice, 2 open ended).

### **5.3.2 Process Steps**

The process steps/directions were defined as follows:

For Individual Evaluations,

- Press an icon (individual icon) and enter first six digits of their Social Security number to view department names
- Use the arrow keys to highlight department/mail code
- Press an icon (team icon) to view team member names
- To begin rating a team member, use the arrow keys to highlight a name and press an icon (compose icon) to compose an evaluation form
- Highlight the selected answer to the multiple choice questions and press <enter> or left mouse button to select  
A user may not abstain from answering any of the multiple choice questions, and should not be able to proceed without making a choice
- Type response to open-ended questions  
Prompt user if open ended questions are not answered, but may submit only the ratings for the multiple choice questions
- Once survey evaluation form has been filled, submit ratings by pressing an icon (mail icon)
- Highlight next team member and repeat process
- Repeat process for other teams in which the rator/participant is listed in

For team evaluations,

- Press an icon (team icon) and enter first six digits of your Social Security number to view department names
- Use the arrow keys to highlight department/mail code
- Press <enter> or left mouse button view team names
- Use the arrow keys to highlight teams' name and press an icon to (team icon) view team members
- Identify relationship to team (member, customer, supplier, or other), and identify the rator team name
- To begin rating a team member, use the arrow keys to highlight a name and press an icon (compose icon) to compose an evaluation form
- Highlight the selected answer to the multiple choice questions and press <enter> or left mouse button to select  
A user may not abstain from answering any of the multiple choice questions, and should not be able to proceed without a choice
- Type response to open-ended questions  
Prompt user if open ended questions are not answered, but may submit only the ratings for the multiple choice questions
- Once survey evaluation form has been filled, submit ratings by pressing an icon (mail icon)
- Highlight next team member and repeat process
- If team or department is unknown, a participant may locate a person by typing the first name, last name or both in the search box
- Once completely finished rating, press walk-away icon to initialize the screen and terminal, and to obtain the session evaluation form

### **5.3.3 Output Requirements**

- Feedback data were to be summarized and distributed (See Appendix B-2b, B-4b, B-5b, B-6b and B-7b)
  - per team member (to team member & team lead), as evaluated by immediate team members
  - per team (to team lead & department head), as evaluated by members, customers, suppliers, and others
  - per department/mail code as a whole (department head), as evaluated by members, customers, suppliers, and others
  - per program as a whole (department head), as evaluated by members, customers, suppliers, and others

Session feedback was obtained from the perspective of an individual evaluator and a team evaluator. (See Appendix B-8a, B-8b, B-8c for the session evaluation form and the session feedback results.)

### **5.3.4 Forms Developed**

The “**Team Initialization Form**” contained fields such as Department/mail code, Team Name, and Team Leader(s). Records which were not entered/imported from the Excel spreadsheet could be easily entered to the system at time of survey.

“**Rator Initialization Form**” contained Department Name, Ratee Name, and Employee ID (first six digits of Social Security number).

The five “**Evaluation Forms**” contained the questions defined for the survey (See Appendix B-2a, B-4a, B-5a, B-6a, and B-7a). The form recorded information such as the team name, department/mail code, the name of the ratee (if the evaluation was for an individual). In addition, field entries were validated to obtain correct information. The open ended questions were optional. The information recorded from the evaluation form were maintained in a separate views for summarizing the information for output requirements. The type of information summarized in the “**Feedback Summary Forms (Spring ‘96)**” remained similar to the “**Feedback Summary Forms (Summer ‘95)**”.

### **5.3.5 Views Developed**

In addition to the views developed for the peer evaluation for Summer, 1996, additional views were created to list team information for team evaluations, responses by members, responses by customers, responses by suppliers, and responses by others.

### **5.3.6 Description of System**

The system description remained similar to the Summer 1996 survey. However, additional security was added to prevent repetitive evaluations, self evaluations, and to prevent non team members evaluating individuals.

## **5.4 Anticipating Disaster Recovery**

In anticipating disasters, a system data was backed up on a daily basis. In anticipation of natural disasters, the backup tape was physically located in a separate location.



## 6. Implementation/Survey

### 6.1 Implementation Phase (August 1995)

- Hardware
  - 10 user terminals (laptops) & 1 server (laptop)
  - Configured to provide privacy
  - Configured and setup in a room close to the elevator, and is visible and easily accessible by all participants
  - Adequate posters on the walls of the computer/evaluation room prompting user steps and describing screen layouts
  - A written sign-in sheet to track system usage and attendance
  - Tape drive for daily backups
  - HP Laser Printer
  - Photo copy machine
  - Paper, envelopes, paper clips, labels, etc.
- Software
  - Lotus Notes Release 3.0
  - Windows 3.11 (Windows for Workgroups)

## 7. Distribution of Results

The printed summary of results were distributed to each individual, team lead, and program manger. Individual results were distributed to the individual and the team lead. The team results were distributed to the team leads and the program manager. The department results were given to the program manager.

## 8. Lessons Learned

### 8.1 Analysis of Participants Comments and Feedback

#### 8.1.1 Session Evaluation (Summer 1995)

- |   |          |
|---|----------|
| • % User participation  | - 100%   |
| • % Users who thought of the survey as a good way to collect team ratings       | - 69.73% |
| • % Users who did not think of the survey as a good way to collect team ratings | - 25.85% |
| • % Users who abstained from the session evaluation                             | -        |
| 4.42%   |          |

The suggestions for improving the rating process obtained from user participants is attached to Appendix A-4b.

#### 8.1.2 Session Evaluation (Spring 1996)

The session evaluation questions for Spring 1996 were changed to obtain feedback for the individual evaluation process, and the team evaluation process. The results are attached to Appendix B-8b and B-8c.

### **8.1.3 Organizational Recognition Award**

On February 24, 1995, Ravin Wijesinghe, a graduate student Research Assistant for the Research Institute for Computing and Information Systems at the University of Houston-Clear Lake received a Certificate of Appreciation from the Space Station Program Office at the Program Managers Office, Houston, Texas.

The award was presented by Mr. Randy Brinkley, the Space Station Program Manager, in appreciation of the excellent computer and customer support of the Space Station Program Office peer evaluation pilot program provided by Mr. Wijesinghe and the RICIS staff.

## **9. Group Support Systems Operational Support**

The above section summarized the successful implementation of Lotus Notes groupware for a Peer Evaluation process under RICIS activity number IR13.A. The following reports on the implementation of groupware training through RICIS research activity IR01.C.

Phase Two (see opening "Phases" chart) of the effort to introduce electronic meeting technology brought together a representative group of NASA/JSC people from assorted organizations within NASA/JSC.<sup>5</sup> That group went through two facilitation training workshops. The assumption was that familiarity with groupware technology would help the participants educate their managers about electronic meetings and that management would support continued development of groupware training and practice sessions.

RICIS staff supported the continued training in several ways. First, RICIS staff were available to provide training and facilitation assistance to JSC as needed, based upon the budget allocation of the project. Second, RICIS staff produced a training support handbook for the portable GSS system. The handbook provides basic suggestions for set-up and solutions in case of technical glitches using the portable system. (See Appendix One)

Third, RICIS staff also worked on producing other training aids to assist JSC personnel with electronic meeting operations. The original plan was, with HRD assistance, to develop a short (3-5 minute) video to be played at the beginning of each practice session.

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<sup>5</sup> This group was called a "virtual team" in the previous reports; the people in the team assembled for groupware training and then returned to their respective organizations. Virtual teams assemble from various parts of an organization as tasks require. They draw from people across traditional organizational boundaries and dissolve as the task is completed. Traditional staffing pulls teams from within a department or unit. See Group Support Systems June 1994 - May 1995, (Gary Hamel, Charles Hardwick, Judy Solecki, March, 1996) for details about the JSC virtual team.

The video was to describe groupware and the tools/techniques available for the practice sessions. In late 1995 it was decided, after discussion with the HRD representative for this project, to create a computer driven program instead. This decision was made to take further advantage of the portability features of the portable groupware system. The training modules that replaced the video could be plugged into the overhead data projector of the portable computer system at the start of a session. After a brief introduction to groupware as a concept, the facilitator would then highlight the tools that were selected for use at the meeting. Participants would see what their computer screens would look like and be given a quick briefing on how GroupSystems for Windows functioned. This training aid consists of thirteen computer disks and a script. (See Appendix Two).

## **10. Beyond the Technology**

As noted earlier, the portable GSS system was successfully used to explore groupware applications using Lotus Notes. However, due to license, logistic and organizational issues and forces, JSC use of the portable GSS system and the GSS meeting room at UHCL was minimal; the virtual team did not reassemble and no practice sessions occurred. What impediments caused the project to stall?

One stumbling block slowing progress in this project was the move of the GSS lab at UHCL from one building to another. The UHCL groupware room was housed in the Bayou building on that campus. The university moved the GSS lab to a new building over the Summer of 1995. In effect, the move shut down the lab from July through September 21, 1995. This interrupted the continuity of the setting and it took time to get the UHCL GSS system up and running properly. Perhaps more importantly, the system was "out of sight and thus out of mind" and unavailable for a length of time, making it easy to leave it out of future planned activities.

Another impediment was the lack of a software license for the portable system. Ventana released a Windows version of the software that was much more user friendly than their old GroupSystems V DOS version. License agreements were in place through UHCL to cover use of the software and the extra user stations provided by adding the portable computers in the RICIS GSS room. However, no budget had been allocated to purchase the Window's version for the portable GSS system server. RICIS asked a Ventana representative that Ventana grant a \$250 research license for use on the portable system to help understand issues involving portable GSS use. Despite several phone contacts with Ventana representatives, no resolution as to how to load a research license of the software on the portable GSS server was reached. Without a budget for the GroupSystems software the portable system could not be used as a stand alone groupware system.

Understanding the logistics of the portable GSS system and the shared use of it by two organizations also was a factor. The cooperative agreement between UHCL and NASA/JSC that flows through RICIS was designed so that both institutions share the

research and the equipment. The portable system was stored at JSC and initially there was confusion about the procedure for RICIS personnel to gain access to the system. Once clarified, security badging and physical access to the Johnson Space Center and to the office where the portable system was stored proved inconvenient for RICIS personnel and hindered the initiative of RICIS personnel, especially the non-U.S. citizen student assistants. In retrospect, it would likely have been better to house the portable system at RICIS. In that way the system would have been used by staff and students to practice and JSC would be "on call" i.e., whenever the system was needed JSC could simply phone RICIS and made arrangements for RICIS staff and students to go to JSC and set up the system for a session.<sup>6</sup>

Organizational issues and downsizing pressures at both UHCL and JSC added further complications. The project's Human Resources Directorate (HRD) contact was not available between February and mid May, 1996. No calls for training assistance from the HRD office were logged during this phase of the project, and RICIS did not have an active named contact to communicate with during this time frame. This lack of communication helped keep the practice training sessions at a standstill. The deliverables in the contract called for a matrix outline of meeting types to be developed by RICIS based upon data provided by the HRD office. The plan was to take the meeting type scenarios and establish practice sessions to allow continued technical facilitation training. The schedule of training sessions was to be coordinated between RICIS and Human Resources Development office. The data for the matrix of JSC meeting types was not delivered from JSC until the end of May 1996. (See Appendix Three) Lack of progress on this front seriously weakened the model of operation and hindered reassembly of the JSC virtual team.

## 11. Final Observations

Introducing new information technology into today's turbulent environments proves vexing. Groupware software is not merely a "plug and play" technology. The technology requires skilled facilitation to function seamlessly. Beyond the technology and facilitation skills lies a need for commitment from organizations and managers in those organizations. Neither the technology nor a few dedicated advocates of the technology will make much progress in the face of organizational inertia.

In retrospect, a fundamental aspect of this research activity involved using GSS technology as a change agent within organizations. While the generally favorable reviews of GSS session participants remained constant, (See Appendix Four) the funding support from the organizations they represented failed to materialize at any meaningful operational level. A detailed study of why GSS participants favorably raved while those

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<sup>6</sup> A hand truck style cart to transport the portable computer system between buildings was to be obtained, as outlined in the research activity description. As portable GSS system use was minimal, the cart was not purchased.

with the purse strings kept them closed would shed insight into how, and if, future implementation of GSS technology should proceed. Two sample study questions are addressed below.

First, *should the GSS project have been cast as a reengineering effort?* For example, a case study of information technology reengineering at Amoco Production Company listed three components for successful renewal, expressed through this formula:

$$D \times V \times T > \text{Resistance to Change.}$$

*D stands for the dissatisfaction with the "current state"*  
*V stands for a vision of a desirable future*  
*T stands for the tools to get there.*

The Amoco study pointed out that "[a]ll three factors need to be clear and in place. The omission of any one (a zero in the formula) nullifies the left side of the equation, and change will not occur."<sup>7</sup>

Did the GSS tool technology sing a siren song for those who conceived of this research activity and embraced the technology; ("build a GSS lab and they will come")? Previous reports from this research activity pointed out that introducing groupware is an extensive procedure requiring a model of operation and skilled facilitation. In this perspective, placing that process in an organizational vision with top management commitment proved impossible during this research activity, both at UHCL and at NASA/JSC.

Second, *perhaps the transfer of the groupware technology was not adequately embraced by the organizations because not enough time was allocated to allow the organizations to adopt GSS?* One widely-used explanation of technology adoption breaks people into a bell-shaped curve. At the far left of the curve are "opinion leaders". This RICIS/NASA GSS research activity was sparked by a few forward looking NASA employees who saw the technology as a means to improve meeting efficiency. The resulting research activity built a GSS lab at UHCL and provided training sessions for NASA and UHCL employees. A portable GSS system was also procured but not widely utilized. According to the model, the GSS project never went much beyond the opinion leader stage, though a few UHCL professors, especially in the School of Business, became "early adopters," the next stage of acceptance of new technology in this model. The model's remaining categories shows early adopters followed by "early majority," "late majority," "laggards," and "retards".<sup>8</sup> Bringing groupware into the early majority stage of this model in these

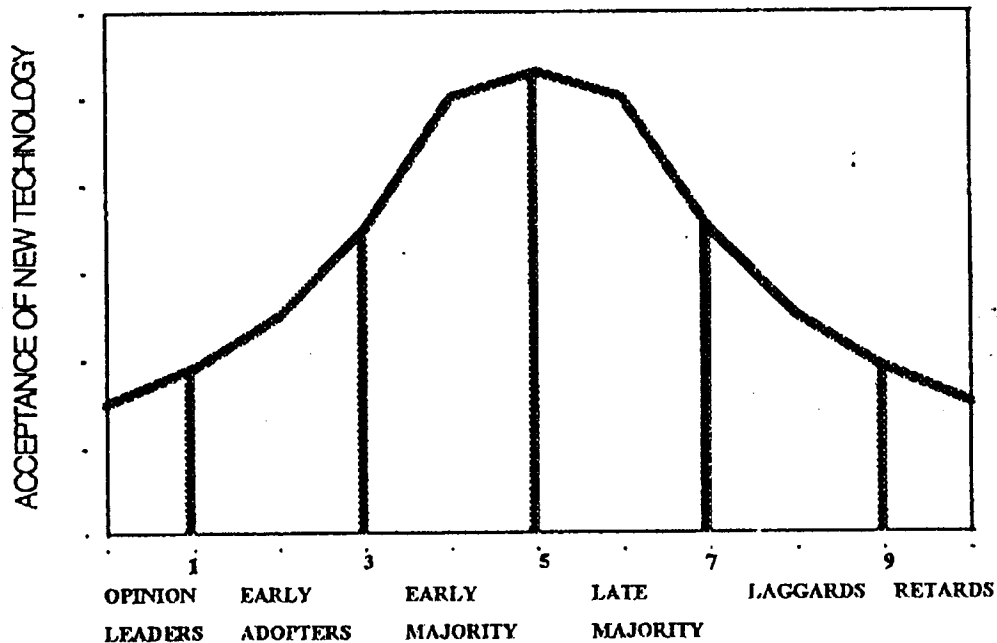
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<sup>7</sup> "Information Technology Reengineering at Amoco Production Company," Jack R.Camp, Amoco Exploration and Production Technology, Houston, TX., Information Systems Research Center Seminar, University of Houston, 4/18/96

<sup>8</sup> "The Continuing Impact of Information Technology on Business and Commerce" A.M. Jenkins, Center on the Management of Information Technology Seminar, 5/2/96, RICE University, Houston. "The Rate of Adoption" graph is from the session handout.

organizations lies in the future; it depends upon the vision of the organizations to adopt information technology to improve process and team performance.

## RATE OF ADOPTION



For now, neither NASA nor UHCL has allocated sufficient funding to meaningfully continue this research activity; RICIS has laid off the professional GSS support staff. Through RICIS, UHCL and JSC assembled a world class groupware facility. The vision and support for robust continual and future operation has not materialized. As evidenced by the Internet, the power of networked computer systems is increasing. Drawing upon these networks, groupware will likely play a significant part in the collaboration among teams in successful organizations of the future.

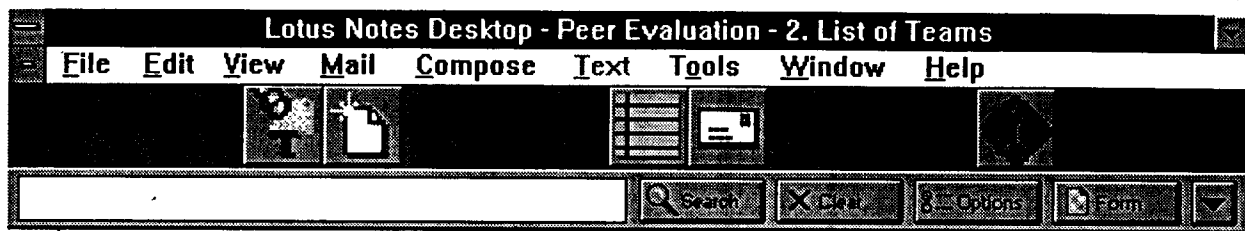
**APPENDIX A**  
**Summer 1995**






# **APPENDIX A-1**

## **Directions and Helpful Hints**




# Directions



1. Use the arrow keys to highlight the mail code where your team is located.
2. Press the "expand" icon  to view team names.
3. Use the arrow key to highlight your teams' name, and press  to view team members.
4. To begin rating your team members, use the arrow keys to highlight a name and press the "compose" icon  .
5. Read each question and use the arrow keys to move the underline to the response you wish to make. The <enter> key will mark your answer. You can then use the arrow keys to move to the next question.
  - You may change an answer at any time by using the arrow keys to move the underline under the response you do want, and then hitting <enter>.
6. Type your response to the open-ended questions (questions 7 & 8).
7. Once you have completed a survey, press the "mail" icon  . This will submit your ratings, and highlight the next team member in the team list.
8. Repeat this process until you have completed rating all your team members.
9. Once you have completely finished your ratings, please press the "walk away" icon  .
10. Please answer the two feedback questions to help us improve this process.

# Helpful Hints

- If you see this with a persons name.....
  - \* = team leader
  - name in green = you have already rated this person
- If you see this in the left margin.....
  - ★ = you have already rated this person
  - ✓ = you pressed the space bar -- ignore this.
- You can search for a name by typing a last name into the search box found in the upper left corner of the screen, and pressing the “search” button.
  - If you highlight a name shown in the search, make sure it is the correct name/team combination you want to rate and then press the “compose” icon.
  - To return to the team list, you must press the “clear” icon (found on the same line as the search box).
- You may collapse list of names or list of teams by pressing the “collapse” icon  .

## **APPENDIX A-2**

### **Opening Screen**

Lotus Notes - Peer Evaluation - 2. List of Teams

File Edit View Mail Compose Text Tools Design Window Help

Search Clear Options Form

Team Information

1. DepartmentName  
50 - Team A (LastName, First name)  
1. LastName, First name - (Team A)

2. QA/Space Station Manager Teams

3. OB/Vehicle Teams

4. OC/Operations Teams

5. OD/Utilization & Research Teams

6. OE/Safety and Mission Assurance Teams

7. OF/Program Risk Management Teams

8. OG/Business Management Teams

9. OH/Russian Program Teams

10. OI/International Partners Teams

11. "Other"

**APPENDIX A-3a**  
**Peer Evaluation Form**

# PEER EVALUATION FORM



Ratee Name: LastName, First name  
Department: DepartmentName

Team Name: Team A

---

1. First name LastName finds common ground with others and gains cooperation easily.

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off (average)
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing; excellent
- ☐ N/A or not enough information to evaluate

2. First name LastName responds to my requests in a timely manner.

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off (average)
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing; excellent
- ☐ N/A or not enough information to evaluate

3. First name LastName clearly articulates what s/he needs from me.

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off (average)
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing; excellent
- ☐ N/A or not enough information to evaluate

4. First name LastName is an attentive and active listener.

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off (average)
- ☒ Almost there; does this well most of the time
- ☐ Don't change a thing; excellent
- ☐ N/A or not enough information to evaluate

5. First name LastName zeros in on the critical tasks required to get the job done.

- ☐ Needs to focus improvement efforts here
- ☒ Sometimes on track & sometimes off (average)
- ☐ Almost there; does this well most of the time
- ☐ Don't change a thing; excellent
- ☐ N/A or not enough information to evaluate

6. First name LastName does quality work (e.g. accurate, done right the first time, etc.)

<input type="radio"/>	Needs to focus improvement efforts here
<input type="radio"/>	Sometimes on track & sometimes off (average)
<input type="radio"/>	Almost there; does this well most of the time
<input checked="" type="radio"/>	Don't change a thing; excellent
<input type="radio"/>	N/A or not enough information to evaluate

**Please make your responses to the following two questions as constructive and helpful to First name LastName as possible.**

7. What does First name LastName do well?  
Comment 2 for Question #7
8. What could First name LastName do better?  
Comment 2 for Question #8

**APPENDIX A-3b**  
**Peer Evaluation Results**



## PEER EVALUATION RESULTS for LastName, First name

Team Name: Team A

Department: DepartmentName

Total number of responses:2

---

- 1 = Needs to focus improvement efforts here
- 2 = Sometimes on track & sometimes off (average)
- 3 = Almost there; does this well most of the time
- 4 = Don't change a thing; excellent
- 0 = N/A or not enough information to evaluate

1. First name LastName finds common ground with others and gains cooperation easily.  
Average response rates you as "Almost there; does this well most of the time/Don't change a thing; excellent."

Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3

2. First name LastName responds to my requests in a timely manner.  
Average response rates you as "Almost there; does this well most of the time."

Number of response : 2  
Mean : 3.00  
Std. : 1.000  
Highest response : 4  
Lowest response : 2

3. First name LastName clearly articulates what s/he needs from me.  
Average response rates you as "Almost there; does this well most of the time."

Number of response : 2  
Mean : 3.00  
Std. : 1.000  
Highest response : 4  
Lowest response : 2

4. First name LastName is an attentive and active listener.  
Average response rates you as "Almost there; does this well most of the time/Don't change a thing; excellent."

Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3

5. First name LastName zeros in on the critical tasks required to get the job done.  
Average response rates you as "Almost there; does this well most of the time."

Number of response : 2  
Mean : 3.00  
Std. : 1.000  
Highest response : 4  
Lowest response : 2

6. First name LastName does quality work (e.g. accurate, done right the first time, etc.)  
Average response rates you as "Don't change a thing; excellent."

Number of response : 2  
Mean : 4.00  
Std. : 0.000

Highest response : 4  
Lowest response : 4

7. What does First name LastName do well?  
Comment for Question #7  
Comment 2 for Question #7
8. What could First name LastName do better?  
Comment for Question #8  
Comment 2 for Question #8

**APPENDIX A-4a**  
**Session Evaluation Form**

## SESSION EVALUATION FORM



---

1. Do you think this was a good way to collect team ratings?

- ☐ Yes
- ☐ No

2. Do you have any suggestions to improve this rating process in the future?

Press to Quit

**APPENDIX A-4b**  
**Session Evaluation Feedback**

## SESSION EVALUATION FEEDBACK (SUMMER '95)



Number of Team Members: 294  
Number of Responses: 294

100.00%

---

1. Do you think this was a good way to collect team ratings?

Yes:	205	69.73%
No:	76	25.85%
Abstain:	13	4.42%

2. Do you have any suggestions to improve this rating process in the future?

I said no to the question above because your not collecting "team ratings" your collecting info on individuals/not the team. If you want to know about team performance, the question should be "how is this team functioning/meeting their goals", etc.

No, I don't think this is a fair and objective way to rate people. I think this rating system should be discontinued

A better machine with a real mouse, or have it on a server so you can use your own machine, with which you should be more familiar.

Ask MORE questions. I didn't think they were all the ones we needed to ask.

Don't do it. Use the resources to train people in program management skills.

Don't do it. I don't see the value in this approach to employee evaluation.

Eliminate it entirely. This process destroys what leadership and empowerment we have.

Eliminate peer ratings. Individual peers can never tell if a particular person doesn't respond to their needs due to lack of ability (or motivation) or if there are other priorities set by superiors. It

is destructive to the organization to give people false positive or negative feedback due to the probability that most peers cannot know the full extent of a particular person's workload and priorities.

Expand the number of responses. I didn't find the questions very defining for most people.

Figure out a way to keep people from evaluating themselves (possibly multiple times) maybe with an anonymous code good one time only. Somehow take the vengful potential out of the ratings (two people up for same promotion, etc.)

I AM CONCERNED THAT RATING PEERS COULD BE DESTRUCTIVE TO TEAM RELATIONSHIPS.

I didn't have the time to do a complete job--spent 50 minutes, needed more.

I don't know what to do about it, but I do not think it is fair to rate or have people rating you that you may be competing with for promotions. Unfortunately, in the real world some people are not always as honest as they should be.

I felt if I answered questions 7 & 8 and the employee saw these answers they would automatically know who had made these statements, so I was reluctant to comment

I interface very little with the NASA personnel on the team. It would be useful to rate the Prime personnel as well.

i suppose tha

I think the only thing this is going to accomplish is to hurt a bunch of peoples feelings. If this system was suppose to help evaluate a team the questions should have been directed to the team as a whole. Such as "how to you feel the VAIT functions as a whole." Each team lead should know where his/her personnel is lacking. If not he/she is a poor manager. The way it was set up might be helpful in doing a persons performance appraisal.

I would be strongly opposed to using this rating in performance evaluations. The results are very subjective to individual personalities. The uncontrolled nature of the selection

process is subject to minimal inputs for some individuals. A better review process are the team evaluation forms (150 questions) that NASA uses in their project management training classes. This evaluation is not subject to individual personality differences.

It focuses on evaluating the team, not the individual. I would still be opposed to using this form in end of the year evaluations, however, since that could bias the results.

I would prefer the immediate supervisor or "lead" who assigned your work responsibilities and works with you on a daily basis should be the individuals who should rate.

If unable to scrap this form of evaluation, focus on team and individual products.

Instead of doing the evaluation randomly you should have to evaluate a certain group of people and then if the evaluator wants to do others then he or she should be able to do that. It also would be good for the Customer to evaluate the person providing the service, ie. since the systems AITs provide a lot of support to the Launch Packages and other system AITs it would be good if they evaluated the person that provides support to them. It would also be useful if the functional managers above the person being evaluated also were made to be a mandatory evaluator.

As for the room conditions I would like to see some privacy walls put up so I don't have to worry if the person next to me is reading what I typed in.

It would be helpful to understand the entire process

how are the evaluation used, how are the evaluation factored into the overall performance evaluation process, does the person evaluated see each rating input, is it truly anonymous, etc.

It would be helpful to understand the entire process

how are these evaluations used, how are the evaluations factored into the performance evaluation process, does the person evaluated see each rating input, is it truly anonymous, etc. more questions related to "people skills". this being the single most important factor in my opinion in the effectiveness of our job

My concern is that each person on the team does not know/care/understand anyone else's priorities. Therefore, it may appear that the person is not responding to requests in a timely manner and the person is rated accordingly. This information should be used only as a guide for the individual. This data should not be the driving force for the manager's evaluation.

Need to address leveling of "stone throwing" and the opposite tendency to only evaluate team members positively.

Need to see how these ratings are used, first, then will decide. More time should be spent getting rid of the current rating system and going to a pass/fail system. Pass/Fail system would be much more effective, especially in the program Office where more people are giving 150% effort than are allowed to receive the outstanding rating.

No, I do not agree with this rating process. I could not effectively rate people I work with because I do not receive products from them. Also, I don't think that people are always fair and objective with this type of rating system. I believe that personality conflicts and personal issues may influence the ratings. For this reason, I do not feel that this is a fair system to use for performance appraisals. Therefore, I do not believe that these ratings should be given to Supervisors.

No, this was a good first cut at a peer evaluation. I think it may help to expand the number of people who respond. Maybe make it mandatory for all personnel. I don't like mandatory but it tends to be the only way to ensure everyone gets involved and therefore the statistical relevance of the data is assured.

no.

one-on-one

Provide cubicles for privacy.

Provides more information to evaluate team members

Questions too vague. I believe in more direct approach to dealing with good and bad co-workers. Describing problems should be a face to face process not with a computer in the middle.

Questions too vague. I believe in the more direct approach to discussing issues or praise with

coworkers. I don't believe in having a computer in the middle.

Questions were asked of persons, not teams. If one wishes to rate teams, one should ask questions on team performance, not individual performance.

Ratings should be completed by team lead or immediate supervisor only.  
scrap it.

Send a real person to each of the teams to see how they are doing, maybe even a spy from management.

Should be screened by supervisor or HR before giving out. I'm concerned about morale, when folks are working so hard. Better to have people sign their name to their evals. if they aren't willing to stand behind it, shouldn't collect it.

Should have tested this on a test group first. Trying out a new process on 300 people is not a great idea, especially when those folks are already putting in 60-80 hours a week.

supervisor/subordinates (and vice versa) should not be rated - this process allows such the true working teams are mainly composed of contractors and matrixed in people - not program office. To truly do a peer evaluation, the true Team members must be accounted for. This process does not adequately address the true working teams.

the mouse stinks, and the names were not highlighted after I finished so I guess none of my work was sent....

The multiple choice section needs more questions and better options.

The open section should have more sections.

The system (computer) is not as user friendly (mouse and cursor) as it should be.

The questions seem somewhat leading, and a particular set of answers does not clearly reflect the type of person, quality of work, or type of team member. A battery of significantly more questions would be required to do this, and time required to evaluate team members with significantly more questions would be prohibitive.

The questions seemed kind of innocuous and easy to rate most people highly. I would prefer to be rated on the goals that were mutually agreed to in my performance plan. A survey of peers that had working experience with me on these performance criteria would then be very useful. /i think this format is too generic to provide specific feedback for improvement.

The use of peer evaluation on this program took almost all of us totally by surprise. This doesn't strike me as being very team-oriented. Communication evidently broke down somewhere. We would have been better able to schedule our time to support this if we had known more than a few days in advance.

While there were a few briefings on the peer evaluation before it was implemented, none of them were after normal working hours. Therefore few people could attend. In the future, I would recommend these informational briefings also be offered after hours as well. Things would have been a lot clearer and less traumatic if they had.

The Vehicle Office had had a discussion about the peer evaluation process during our spring retreat. The overall discussion was that it was beneficial, however, it was VERY time consuming when done correctly. We therefore decided not to do it. Yet we are required to do it with the result that our productive time is impacted. Many of the respondents are evaluating only one individual in the interest of time. If we are serious about doing this correctly we need to be able to record who we have evaluated to remind us who we have evaluated and who we haven't. Otherwise you risk a mediocre response.

And expand the after hours time slots for the room. It is nearly impossible to get in here during normal work hours. This is mandatory.

It still is not clear who exactly is a peer. By the broadest interpretation that would be almost everyone in the Vehicle office. This needs to be scoped better or at least clearer. Some examples would help. You could spend hours upon hours in here if you evaluated everyone you communicate or work with on a daily basis.

This is a good beginning, and should be done. However, there are more formal/controlled methods for rating. I think this could cause problems because of the very easy accessibility. Time will tell. Hey, this is a lot better than what you had.

this is stupid



This method has the potential to turn into a popularity contest. Working well with other is not always the most important factor. You may have to make unpopular statements to get the job done right.

This process is personal not professional. You can rate people you don't like and hurt them and rate people you do like to hurt them. You can even rate yourself to bolster your own rating.

This is more of a popularity contest than a rating system.

This report focused on the structure of my organizational team, but not on my actual "Peers". It may be more useful to get feedback from those people who are really peers instead of those people who are in my organizational team. The launch package team members all work on different things with different groups, and it would be better to get input for those people who on

working together on a specific element or launch package (i.e. Node, launch package 2A).

Too many variables in the evaluation.

Work will become a popularity contest between members in order to get good ratings.

Unfortunately in this environment, we're here to get a job done. There's too much work to answer individual requests for unscheduled work (due to poor planning on one side) and it may seem that a person isn't performing well to a few individuals.

This space intentionally left blank.

1.

1. To start, prompt the user to enter his or her name, then show list of teams that the person is on. At first, I didn't know which teams I was on, according to your data base.

2. Do not produce prompt when a person scrolls too far through an evaluation form. Wait until the mail icon is pressed, then prompt if a question was inadvertently skipped. The scrolled-too-far prompt is VERY annoying!

A clearer statement of how easy the process is and how feedback is going to be delivered to the people being evaluated would motivate more participation. Everyone is so busy sometimes that they don't do this. I always feel this is valuable, if only to vent frustration.

A number of active IPTs were not covered. also need to include contractors

Add a question about technical competence.

Add questions which pertain to completing critical milestones on time and within budget.

Add security to make sure that we have good quality control on the data.

allow you to go back and review your responses even though you mailed them

Although some people don't like to answer (or hear the answers to) open-ended questions, I think you get the most valuable feedback from those types of questions.

An indication of how much time is spent interfacing/working with the individual rated.

Allow users to access the ratings they have received thus far.

Ability to return to a ratee and revise rating (after rating others).

Ask more questions, If you do not regularly write personnel reviews it is hard to compose an anonymous narration commenting on someone's performance.

a. Provide print capability..

b. Provide team name and questions to each team prior to the evaluation period: this will allow personnel to work on evaluations ahead of time and during other activities that don't require continuous full attention. The evaluations can then be taken to the evaluation

room

and typed in quickly.

Better define "peers" to be evaluated.

Can't think of anything at this time.

Change the timing of the rating system. Everyone seems to be extremely busy with many priorities at this time

I've heard comments that team members just don't have the time to participate now.

Clarify the role this evaluation will have in our overall appraisal. Randomize the team rosters, the team members with names near the beginning of the alphabet will get more evaluations, because we run out of time.

Concerned that the process is not set up to evaluate members on cross pollinated teams (i.e., the VAIT has representation from Ops, Safety, Utilizations, Business, etc yet they were not highlighted on the VAIT team). It would be good to get feedback from members of other teams rather than searching thru the "other" category. Due to small numbers in some IPTs or AITs, by process of elimination a person could get a general feel of how he or she was evaluated by members of the team. There should be a minimum number of evaluators required if you're going to publish results

Consolidate as many teams as possible. Provide evaluation handbook, which guides the evaluator through the process and gives examples of constructive comments. Provide the survey on line to all computers so that people can perform from their desks.

Do it more often!!!

Do not include contractors, I can not see them accepting this process -- government and boeing thinking are not

along the same wavelength. Matrix input could be useful.

Don't allow as much time to evaluate. Deadlines work

Don't make it blind rating

own up to what you put into the system.

Some people are members on paper of teams but are never included for meetings or activities.

Have a way to show who is actually an active participant and who is just a member.

Don't provide info. to supervisor.

Encourage people to participate - don't pressure them.

Provide positive reinforcements to participate, not negative ones.

"The floggings will continue until morale improves."

It isn't right to provide a sanctioned path for people to give unsubstantiated, anonymous, negative comments to someone's supervisor.

Examine other sets of questions to ask.

expand the basic questions to be more comprehensive

Find a better way to make sure people are listed with ALL of the teams they regularly support.

The general 'catch-all' ca

Flesh out teams more. I had to go to "Other" to review individuals outside of my immediate team, even though I'm a member of said team.

For Business Mgmt Office, revisit this process when the organization is finally stabilized.

For future releases you should provide more multiple choice questions. Perhaps each team could tailor these questions to itself. The value in a tool such as this is helping the individual identify the areas where he/she needs to improve. Having questions tailored to the team would go a long way to this end.

get real mouses. this interfaces drove me crazy

Given the multi-dimensions of team interactions (especially for VAIT) it would help to put some criteria together for reviewing interactions with other team---i.e. we establish in the TEP's what other teams we work with and should probably make that a part of this evaluation.

Good system. The thing that needs improving is the team roster process. If a team doesn't meet at least once a month, it probably isn't being managed in a team manner. Need to establish a birth control method for teams. (maybe some euthenasia, too)

Have more focused questions . . . these seemed a bit on the nebulous side. Also expand this process to include our Boeing teammates.

Have more questions and then allow space to expand after each question!

Have more questions similar to those in the performance plan, perhaps even tailored to a given team or teams.

how can we make this faster??? and still collect good stuff???

I'm glad to see you incorporated the comments of the focus groups

I'm not sure. I guess I'm only afraid of the possibility that the folks who think I'm working hard and doing a great job may not rate me, whereas, I'm sure the folks who don't like me will definitely

evaluate me. I don't know the answer to this.

I do not know what happens to this data after it is compiled, but it would

I say "Yes" provided these ratings are not a component of anyone's official performance evaluation. Otherwise, I think a more controlled system of input should be implemented. I say this because the current system allows one to rate one's self highly, while torpedoing his/her adversaries.

I suspect that there are probably other questions that could be asked of people, but I haven't given it any thought and so I have no suggestions at this time.

I think it is more important to evaluate your customers than your teammates.

I think that there are a lot of "Sacred Cow" procedures and documents that are not serving their original intent. I think that a similar anonymous survey of the "process" would convey to management ways to improve the efficiency of the teams

I think the multiple choice format is too limiting, and I would feel it would be more constructive to have more narrative answers to questions. Even though this would take more time, it would be more effective.

I would like an opportunity to answer again after I see what is done with the information after it is compiled (Who gets to see what? How will it be distributed? etc.). It might help to add a section to comment on the performance of a whole team, as each team seems to have a group personality. This area should be separate from the evaluation of the team lead, to prevent evaluations of the team lead as a single team member from being mixed with an overall team evaluation.

I would publish a list of the questions in advance so people could formulate their responses and be prepared to just input the ratings. This I feel would take less computer time.

Improve the Human Computer Interface. Let everyone know how easy it is so that we won't put it off for so long

include contractors, they are some of our best people

include folks outside the program

Include the remote field center folks. Currently, this data base doesn't contain the NASA MSFC and KSC folks that support Utilization. It would also be helpful if they had this system and they could evaluate us.

instead of question 7 & 8, include a comment section for each question

It is very hard to be critical of my teammates because they are all very good engineers. Six questions is maybe too few to get a feel for their skills. An intro on how this survey will be used would also be helpful for those of us who missed any classes or meetings on the evaluation.

These laptops are difficult to work with (whine)

it only took a half hour, not bad at all.

It seems unfortunate that this came up a such a busy

It should not be set up so that supervisors are rating their employees, since there is another system for doing that, unless this is used in place of it. The "others" category is not necessary and is inviting character assassinations that are nonproductive.

List more of the sub-IPT's. I submitted my team but it was not on the system.

Make sure everyone understands the purpose and the process

make the questionnaire more meaningful

Make the system more user friendly by requiring (and instructing users) in only one key for selections and data entry. Disable unnecessary keys. Tell people to start by finding themselves in their own organization and rating the appropriate people there, and then go to "OTHER" and find anyone else they may wish to evaluate.

Make tool available via Mac's at each person's desk so that we don't have to come to this room to fill out the forms.

May want to incorporate team health questions.

Maybe some work on the questions.

More flexibility in rating options

open-ended responses

More questions and finer resolution answers.

Need real mouse -- touch pad really is difficult to use.

Ask this question again after we see the results

too hard to evaluate the overall process yet.

Need to improve the survey. The way the answers are structured, they are negative responses with the exception of one of them (the "excellent" rating). Also, there could be more multiple choice questions covering a larger range of performance.

need to involve primary peers outside Program. Many folks`work more with peers outside the program than within.

need to look at a different set of questions that relate to teams. there are differences. go back to establishing objectives of team ratings and develop question that meet those objectives.

no

no

no

no

no

no

no

no

no

no

no

no

no

no

No

No

No

No

No

No

none

None at this time.

None.

None.

not at present

Not at this time

Not at this time.

Not at this time.

Not at this time

No, none. This is an excellent survey.

No, This is a good team evaluation process.

No.

No.

No.

No...My problem was lack of keyboard familiarization with this particular computer which cleared once I used it for a while

People should be listed with all the teams they regularly support. The "all" category

Probably more questions that are not so generalized with spaces to elaborate.

Probably need a few more items but this is a good start.

Provide a way to indicate on what activities or teams' you are rating a person.

Noone participants or is able to participate in all the teams they are assigned to the same extent, and therefore for some teams attributes would be incomplete. Those attributes are filled in by experiences with that person while involved in other teams or activities for which the evaluator is not an official member.

Provide access at each person's computer instead of a single room

Provide more insight into how this will be used - I like the concept but people need insight into how and why this is being done

Provide more questions that are specific to the roles and responsibilities of each team.

Put the evaluation format on the server to allow us to do it at our own workstations

Put this on a server somewhere so we can do it from our desks.

questions should be tailored to the job being performed by that person

reduce mouse movements required to get through this

add questions about specific member capabilities such as leadership capability and conflict management

Seems like more control over who can evaluate who is needed to ensure the integrity of the feedback. Logon with a password and inhibits placed over groups you should not be rating.

Some teams have varied personnel, and was not able to rate since I don't work directly with them, even though we are on the same team

Team roster needs to be better defined, whether it's a functional team or a cross-functional team.

Tell me what the questions are in advance so I can prepare my responses.

Include Boeing counterparts of my team in the process.

The evaluation questions are very limited, there should be more questions to really provide a fair and accurate evaluation.

The layout of these laptops is poor. Hands keep hitting the mouse buttons while typing.

The rating process is very subjective and not detailed enough. Ratings of say 1 to 10 after each response to the questions has been selected may be even more insight on the ratings for the persons. More questions may also be more appropriate.

There must be some accountability for comments to prevent personal issues coming through in job evaluations.

This method, providing computers in a designated room, is good. The evaluations, however, are entirely subjective and full of individual bias. This may not matter if the evaluations are confined to informal communication to help employees identify strengths and weaknesses through the eyes of their peers.

This should be a true peer evaluation not a team member evaluation.

If we want to evaluate by teams we should also evaluate by peers. This should be a true peer evaluation not a team member evaluation.

If we want to evaluate by teams we should also evaluate by peers.

this will depend upon the report we all get back and the usefulness of it. The questions seemed to be appropriate.

To many different groups. Suggest you pick a level at which evaluations should be done and have a person in only one group. If we want to evaluate others outside this group then we can go to your "other" listing.

Use Mac's in the future.

We need to use our actual working teams. They are much more meaningful than the teams by organization. The entire concept of IPTs are that they are integrated across all of the program areas. That would provide more realistic feedback from our real co-workers.

Yes, collect a list of question other than ones listed. Could not answer correctly for each person

rated because questions did not pertain.

This space intentionally left blank.

Ask this question after we see if the results are useful.

I'm not sure that this is a good way to collect team ratings. I AM sure that it should not be tied to performance ratings. I also believe very strongly that it should never become part of a person's file in personnel. I'm concerned about what uses information like this could be put to, once it is all in a computer and can be tabulated and compiled - and preserved forever.

Misunderstandings and even unfounded judgements by people with an ax to grind could come back to haunt someone for a long time.

So as far as I'm concerned, "the proof of the pudding is in the eating", that is, I'm reserving judgement on benefits for the team until I see the results. But I'm still leery of having this kind of information and judgement calls in a computer. I'm concerned that it could be used at some future time by people with their own agendas - agendas not related to the team improvement purpose for which this was designed.

I think that, for everyone's protection, the information gathered here should be given to the team member and his or her supervisor, and then wiped out of the record.

Inform decision makers that culture change takes time and must be encouraged not directed in a "voluntary" mandatory way.

Don't provide anonymous, negative comments to people's leads or supervisors.

Make raters more accountable by requiring them to enter their names (even if they are kept confidential). This will ensure that inputs are not frivolous. Also, require that all team members rate others. Often, only negative feedback is reported unless specifically requested.

no

no

not at this time

switching from mouse to keys is confusing... is there a way to make it all one way or all the other?

the team lists need a lot of work. Eg., a supervisor should not be evaluating the people who work for him/her as peers.

this method has great potential, however the categories need to be expanded or a method for adding qualifiers provided

**APPENDIX B**  
**Spring 1996**



**APPENDIX B-1**  
**Opening Screen for Individual Evaluation**

Lotus Notes - Peer Evaluation - 1996 - 2. List of teams\b. by Member

File Edit View Mail Compose Text Tools Design Window Help

Search Clear Options Form

Team Member Information

1. Department A
  - 1.1 - LastName2, FirstName2
  - 1.2 - LastName, FirstName
2. QA - Program Office
3. OB - Vehicle
4. OC&OD - Operations and Utilization
5. OE - Safety and Mission Assurance
6. OF - Program Risk Management
7. OG - Business Management
8. OH - Phase 1
9. OI - International Partners

**APPENDIX B-2a**  
**Individual Evaluation Form**



## INDIVIDUAL EVALUATION FORM

Ratee Name: LastName2, FirstName2 Department: Department A

### COMMUNICATION

---

1. FirstName2 LastName2 clearly articulates what s/he needs from me.  
(is easily understood, gets messages across effectively, both orally and in writing)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing
- ☐ N/A or not enough information to evaluate

2. FirstName2 LastName2 pays full attention to me and the messages I convey.  
(actively listens, checks for understanding, this includes written requests)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about FirstName2 LastName2 regarding communication?

### RELIABILITY

---

3. FirstName2 LastName2 responds to my requests in a timely manner.  
(is responsive, is accessible)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing
- ☐ N/A or not enough information to evaluate

4. FirstName2 LastName2 does quality work.  
(is accurate, is done right the first time)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about FirstName2 LastName2 regarding reliability?

## LEADERSHIP/MEMBERSHIP

---

5. FirstName2 LastName2 takes initiative with his/her work.

(sees what needs to be done, is decisive, can lead others when necessary,  
can comfortably handle risk and uncertainty)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Don't change a thing
- ☐ N/A or not enough information to evaluate

6. FirstName2 LastName2 finds common ground with others and gains cooperation easily.  
(is a team supporter, knows when to get help, handles conflict effectively)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Don't change a thing
- ☐ N/A or not enough information to evaluate

7. FirstName2 LastName2 zeros in on the critical tasks required to get the job done.  
(is organized, doesn't waste time)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Don't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about FirstName2 LastName2 regarding leadership/membership?

## DEVELOPMENT

---

8. FirstName2 LastName2 continuously improves him/her-self.

(seeks feedback, takes constructive criticism well, develops improvement plans for self,  
watches others for their reactions, takes training)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Don't change a thing
- ☐ N/A or not enough information to evaluate

9. FirstName2 LastName2 seeks to develop his/her team.

(gives constructive criticism, shares experiences with team, supports the team effort)

- ☐ Needs to focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Don't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about FirstName2 LastName2 regarding development?

**OPEN ENDED**

---

10. What else does FirstName2 LastName2 do well?

Comment for Question #10

11. What else could FirstName2 LastName2 do better?

Comment for Question #11

**APPENDIX B-2b**  
**Individual Feedback Results**

## FEEDBACK RESULTS for LastName2, FirstName2

Department: Department A    Total number of responses:2

- 1 = Focus improvement efforts here
- 2 = Sometimes on track & sometimes off
- 3 = Almost there; does this well most of the time
- 4 = Don't change a thing
- 0 = N/A or not enough information to evaluate

### COMMUNICATION

1. FirstName2 LastName2 clearly articulates what s/he needs from me.  
(is easily understood, gets messages across effectively, both verbally and in writing)  
Average response rates you as "Almost there; does this well most of the time/Don't change a thing."  
Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3
2. FirstName2 LastName2 pays full attention to me and the messages I convey.  
(actively listens, checks for understanding, this includes written requests)  
Average response rates you as "Almost there; does this well most of the time/Don't change a thing."  
Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3

### RELIABILITY

3. FirstName2 LastName2 responds to my requests in a timely manner.  
(is responsive, is accessible)  
Average response rates you as "Almost there; does this well most of the time/Don't change a thing."  
Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3
4. FirstName2 LastName2 does quality work.  
(is accurate, is done right the first time)  
Average response rates you as "Almost there; does this well most of the time."  
Number of response : 2  
Mean : 3.00  
Std. : 1.000  
Highest response : 4  
Lowest response : 2



## LEADERSHIP/MEMBERSHIP

---

5. FirstName2 LastName2 takes initiative with his/her work.

(sees what needs to be done, is decisive, can lead others when necessary,  
can comfortably handle risk and uncertainty)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 2  
Mean : 3.00  
Std. : 0.000  
Highest response : 3  
Lowest response : 3

6. FirstName2 LastName2 finds common ground with others and gains cooperation easily.

(is a team supporter, knows when to get help, handles conflict effectively)

Average response rates you as "Almost there; does this well most of the time/Don't change a thing."

Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3

7. FirstName2 LastName2 zeros in on the critical tasks required to get the job done.

(is organized, doesn't waste time)

Average response rates you as "Almost there; does this well most of the time/Don't change a thing."

Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3

## DEVELOPMENT

---

8. FirstName2 LastName2 continuously improves him/her-self.

(seeks feedback, takes constructive criticism well, develops improvement plans for self,  
watches others for their reactions, takes training)

Average response rates you as "Almost there; does this well most of the time/Don't change a thing."

Number of response : 2  
Mean : 3.50  
Std. : 0.500  
Highest response : 4  
Lowest response : 3

9. FirstName2 LastName2 seeks to develop his/her team.

(gives constructive criticism, shares experiences with team, supports the team effort)

Average response rates you as "Don't change a thing."

Number of response : 2  
Mean : 4.00  
Std. : 0.000  
Highest response : 4

Lowest response : 4

#### OPEN ENDED COMMENTS

---

Comments about FirstName2 LastName2 regarding communication?

Comments about FirstName2 LastName2 regarding reliability?

Comments about FirstName2 LastName2 regarding leadership/membership?

Comments about FirstName2 LastName2 regarding development?

#### OPEN ENDED

---

10. What else does FirstName2 LastName2 do well?

Comment #2 for Question #10

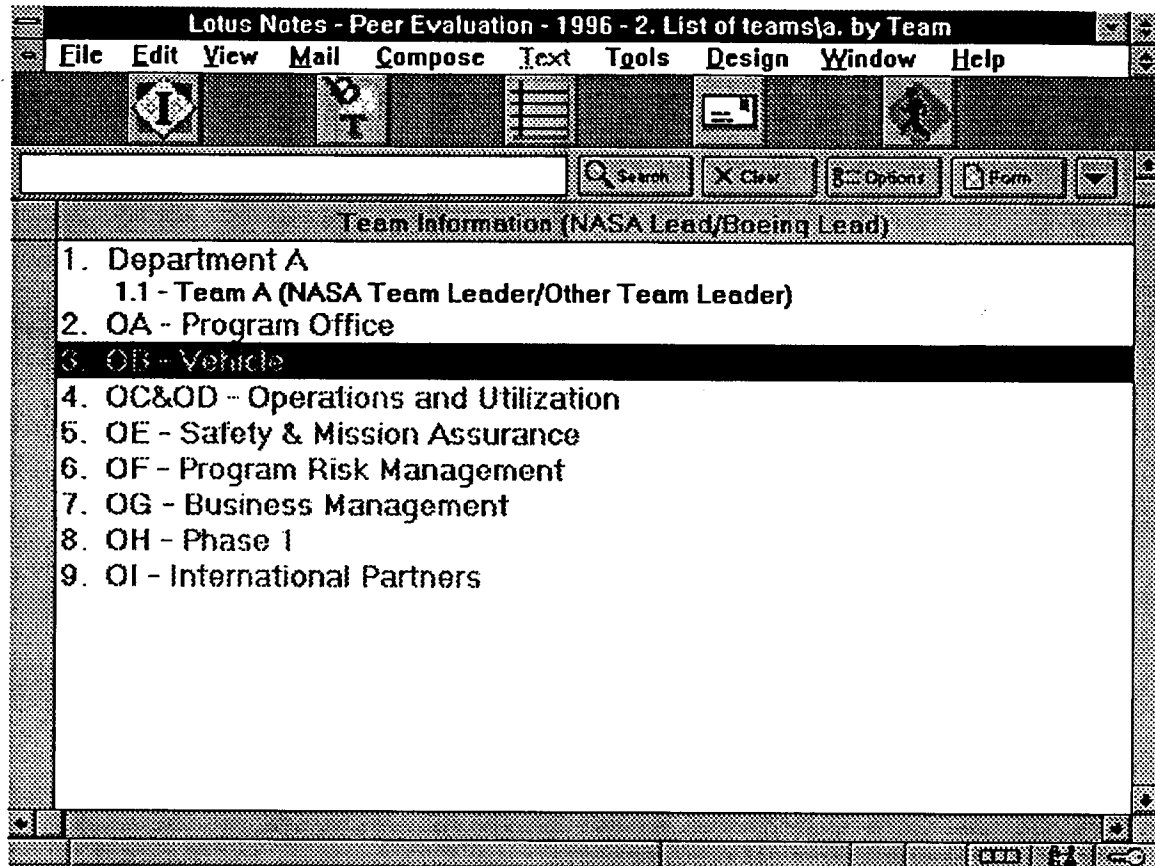
Comment for Question #10

11. What else could FirstName2 LastName2 do better?

Comment #2 for Question #11

Comment for Question #11

**APPENDIX B-3**  
**Opening Screen for Team Evaluations**



**Relationship**

Please identify your relationship to the team you will be evaluating. I am a:

OK Cancel

a. Team member (I belong to this team)  
b. Customer (I receive info. products & services)  
c. Supplier (I provide info., products & services)  
d. Other (I am not exclusively a customer or supplier)

**APPENDIX B-4a**  
**Member Evaluation Form**



## MEMBER EVALUATION FORM

Team Name: Team A

Department: Department A

### COMMUNICATION

---

1. Within the Team A we communicate effectively.

(we share needed information, get messages across effectively; both orally and in writing)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

2. Within the Team A we pay attention to each other.

(we actively listen, check for understanding; with both oral & written requests)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding communication?

### ROLES AND RESPONSIBILITIES

---

3. Within the Team A we know who is responsible for each task.

(we have a clear charter, clearly defined products, clearly defined roles and responsibilities)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

4. Within the Team A our leader is effective.

(can lead others, is decisive, plans projects skillfully, can get the best out of team members)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding roles and responsibility?

### CONFLICT MANAGEMENT

---

5. Within the Team A we cooperate and resolve conflicts constructively.  
(we know when it's best to compromise, collaborate in work being done)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding conflict management?

## DECISION MAKING

---

6. Within the Team A we have a useful decision making process.  
(it is effective, organized, timely, acceptable)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding decision making?

## TRUST/RESPECT

---

7. Within the team Team A we treat each other with fairness, trust, and respect.  
(we create a supportive environment, show common courtesy to each other)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding trust/respect?

## TEAMING ENVIRONMENT

---

8. Within the Team A we are committed to the team effort.  
(we get the job done, support each other)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

9. Within the Team A we recognize each others' accomplishments.  
(we are appreciative of work well done, celebrate both individual and team)

accomplishments, reward milestones)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☒ N/A or not enough information to evaluate

10. The Team A is accomplishing what the program needs it to accomplish.

- ☐ Strongly Disagree
- ☐ Disagree
- ☐ Moderately Disagree
- ☐ Moderate
- ☐ Moderately Agree
- ☒ Agree
- ☐ Strongly Agree

11. I would rate my overall satisfaction with the Team A as:

- ☐ Completely Unsatisfied
- ☐ Unsatisfied
- ☐ Moderately Unsatisfied
- ☐ Moderate
- ☒ Moderately Satisfied
- ☐ Satisfied
- ☐ Completely Satisfied

What comments would you like to make about Team A regarding teaming environment?

OPEN ENDED

---

12. What else does the Team A do well?

Comment #1 for Question #12

13. What else could the Team A do better?

Comment #1 for Question #13



**APPENDIX B-4b**  
**Team Member Feedback Results**

## TEAM MEMBER FEEDBACK RESULTS

for : Department A

Total number of responses: 2

- 1 = Focus improvement efforts here
- 2 = Sometimes on track & sometimes off
- 3 = Almost there; does this well most of the time
- 4 = Shouldn't change a thing
- 0 = N/A or not enough information to evaluate

### COMMUNICATION

1. Within the [TEAM NAME] we communicate effectively.

(we share needed information, get messages across effectively; both orally and in writing)

Average response rates you as "Shouldn't change a thing."

Number of response : 2  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

2. Within the [TEAM NAME] we pay attention to each other.

(we actively listen, check for understanding; with both oral & written requests)

Average response rates you as "Shouldn't change a thing."

Number of response : 2  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

### ROLES AND RESPONSIBILITIES

3. Within the [TEAM NAME] we know who is responsible for each task.

(we have a clear charter, clearly defined products, clearly defined roles and responsibilities)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 2  
Mean : 3.00  
Std. : 0.000  
Highest response : 3  
Lowest response : 3

4. Within the [TEAM NAME] our leader is effective.

(can lead others, is decisive, plans projects skillfully, can get the best out of team members)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 2  
Mean : 3.00  
Std. : 0.000  
Highest response : 3  
Lowest response : 3

## CONFLICT MANAGEMENT

---

5. Within the [TEAM NAME] we cooperate and resolve conflicts constructively.  
(we know when it's best to compromise, collaborate in work being done)

Average response rates you as "Shouldn't change a thing."

Number of response : 2  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

## DECISION MAKING

---

6. Within the [TEAM NAME] we have a useful decision making process.  
(it is effective, organized, timely, acceptable)

Average response rates you as "Shouldn't change a thing."

Number of response : 2  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

## TRUST/RESPECT

---

7. Within the [TEAM NAME] we treat each other with fairness, trust, and respect.  
(we create a supportive environment, show common courtesy to each other)

Average response rates you as "Shouldn't change a thing."

Number of response : 2  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

## TEAMING ENVIRONMENT

---

8. Within the [TEAM NAME] we are committed to the team effort.

(we get the job done, support each other)

Average response rates you as "Sometimes on track & sometimes off/Almost there; does this well most of the time."

Number of response : 2  
Mean : 2.50  
Std. : 0.500  
Highest response : 3  
Lowest response : 2

9. Within the [TEAM NAME] we recognize each others' accomplishments.

(we are appreciative of work well done, celebrate both individual and team accomplishments, reward milestones)

Average response rates you as "Sometimes on track & sometimes off."

Number of response : 1  
Mean : 2.00  
Std. : 0.000  
Highest response : 2  
Lowest response : 2

10. The [TEAM NAME] is accomplishing what the program needs it to accomplish.

	<u>Count</u>	<u>Percentage</u>
1 = Strongly Disagree	0	0.00%
2 = Disagree	0	0.00%
3 = Moderately Disagree	0	0.00%
4 = Moderate	0	0.00%
5 = Moderately Agree	0	0.00%
6 = Agree	2	100.00%
7 = Strongly Agree	0	0.00%

11. I would rate my overall satisfaction with the [TEAM NAME] as:

	<u>Count</u>	<u>Percentage</u>
1 = Completely Unsatisfied	0	0.00%
2 = Unsatisfied	0	0.00%
3 = Moderately Unsatisfied	0	0.00%
4 = Moderate	1	50.00%
5 = Moderately Satisfied	1	50.00%
6 = Satisfied	0	0.00%
7 = Completely Satisfied	0	0.00%

## **OPEN ENDED COMMENTS**

---

Comments about Team A regarding communication?

Comments about Team A regarding roles and responsibility?

Comments about Team A regarding conflict management?

Comments about Team A regarding decision making?

What comments would you like to make about Team A regarding trust/respect?

What comments would you like to make about Team A regarding teaming environment?

## **OPEN ENDED**

---

12. What else does the Team A do well?

Comment #2 for Question #12

Comment #1 for Question #12

13. What else could the Team A do better?

Comment #2 for Question #13

Comment #1 for Question #13

**APPENDIX B-5a**  
**Customer Evaluation Form**



## CUSTOMER EVALUATION FORM

Team Name: Team A

Department: Department A

### COMMUNICATION

---

1. The Team A communicates effectively with me.

(they share needed information, get messages across effectively; both orally and in writing)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

2. The Team A pays attention to me.

(they actively listen, check for understanding; with both oral & written requests)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☒ N/A or not enough information to evaluate

3. I understand the roles and responsibilities of the Team A.

(charter, products, roles and responsibilities)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding communication?

### CONFLICT MANAGEMENT

---

4. The Team A cooperates and resolves conflicts constructively.

(they know when it's best to compromise, collaborate in work being done)

- ☐ Focus improvement efforts here
- ☒ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding conflict management?

### DECISION MAKING

---

5. The Team A makes good decisions.  
(stable, based on facts and reason, timely)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding decision making?

---

#### TRUST/RESPECT

6. The Team A treats others with fairness, trust, and respect.  
(they create a supportive environment, show common courtesy)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding trust/respect?

---

#### TEAMING ENVIRONMENT

7. The Team A gets the job done effectively.  
(they know what needs to be done and do it, step up to challenges when necessary)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

8. Members of the Team A are accessible when needed.  
(they are easy to reach, responsive, attentive)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding teaming environment?

---

#### OPEN ENDED

9. What else does the Team A do well?  
Comment #1 for Question #9



10. What else could the Team A do better?  
Comment #1 for Question #10

**APPENDIX B-5b**  
**Customer Feedback Results**

## CUSTOMER FEEDBACK RESULTS

for: Team A

Department: Department A

Total number of responses: 1

- 1 = Focus improvement efforts here
- 2 = Sometimes on track & sometimes off
- 3 = Almost there; does this well most of the time
- 4 = Shouldn't change a thing
- 0 = N/A or not enough information to evaluate

### COMMUNICATION

1. The Team A communicates effectively with me.  
(they share needed information, get messages across effectively; both orally and in writing)  
Average response rates you as "Shouldn't change a thing."  
Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4
2. The Team A pays attention to me.  
(they actively listen, check for understanding; with both oral & written requests)  
Average response rates you as "N/A or not enough information to evaluate."  
Number of response : 0  
Mean : 0.00  
Std. : 0.000  
Highest response :  
Lowest response :
3. I understand the roles and responsibilities of the Team A.  
(charter, products, roles and responsibilities)  
Average response rates you as "Shouldn't change a thing."  
Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

### CONFLICT MANAGEMENT

4. The Team A cooperates and resolves conflicts constructively.  
(they know when it's best to compromise, collaborate in work being done)  
Average response rates you as "Sometimes on track & sometimes off."  
Number of response : 1  
Mean : 2.00  
Std. : 0.000  
Highest response : 2  
Lowest response : 2

## DECISION MAKING

---

5. The Team A makes good decisions.

(stable, based on facts and reason, timely)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 1  
Mean : 3.00  
Std. : 0.000  
Highest response : 3  
Lowest response : 3

## TRUST/RESPECT

---

6. The Team A treats others with fairness, trust, and respect.

(they create a supportive environment, show common courtesy)

Average response rates you as "Shouldn't change a thing."

Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

## TEAMING ENVIRONMENT

---

7. The Team A gets the job done effectively.

(they know what needs to be done and do it, step up to challenges when necessary)

Average response rates you as "Shouldn't change a thing."

Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

8. Members of the Team A are accessible when needed.

(they are easy to reach, responsive, attentive)

Average response rates you as "Shouldn't change a thing."

Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

## **OPEN ENDED COMMENTS**

---

Comments about Team A regarding communication?

Comments about Team A regarding conflict management?

Comments about Team A regarding decision making?

Comments about Team A regarding trust/respect?

Comments about Team A regarding teaming environment?

## **OPEN ENDED**

---

9. What else does the Team A do well?

Comment #1 for Question #9

10. What else could the Team A do better?

Comment #1 for Question #10

Which of your customers evaluated you?

---

**APPENDIX B-6a**  
**Supplier Evaluation Form**



## SUPPLIER EVALUATION FORM

Team Name: Team A

Department: Department A

### COMMUNICATION

---

1. The Team A communicates effectively with me.

(we share needed information, get messages across effectively; both orally and in writing)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

2. The Team A pays attention to me.

(they actively listen, check for understanding; with both oral & written requests)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

3. I understand the roles and responsibilities of the Team A.

(charter, products, roles and responsibilities)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding communication?

### CONFLICT MANAGEMENT

---

4. The Team A cooperates and resolves conflicts constructively.

(they know when it's best to compromise, collaborate in work being done)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding conflict management?

### DECISION MAKING

---

5. The Team A makes good decisions.  
(stable, based on facts and reason, timely)

<input type="radio"/>	Focus improvement efforts here
<input type="radio"/>	Sometimes on track & sometimes off
<input type="radio"/>	Almost there; does this well most of the time
<input type="radio"/>	Shouldn't change a thing
<input checked="" type="radio"/>	N/A or not enough information to evaluate

What comments would you like to make about Team A regarding decision making?

---

**TRUST/RESPECT**

6. The Team A treats others with fairness, trust, and respect.  
(they create a supportive environment, show common courtesy)

<input type="radio"/>	Focus improvement efforts here
<input type="radio"/>	Sometimes on track & sometimes off
<input checked="" type="radio"/>	Almost there; does this well most of the time
<input type="radio"/>	Shouldn't change a thing
<input type="radio"/>	N/A or not enough information to evaluate

What comments would you like to make about Team A regarding trust/respect?

---

**TEAMING ENVIRONMENT**

7. The Team A gets the job done effectively.  
(they are easy to reach, responsive, attentive)

<input type="radio"/>	Focus improvement efforts here
<input type="radio"/>	Sometimes on track & sometimes off
<input checked="" type="radio"/>	Almost there; does this well most of the time
<input type="radio"/>	Shouldn't change a thing
<input type="radio"/>	N/A or not enough information to evaluate

What comments would you like to make about Team A regarding teaming environment?

---

**OPEN ENDED**

9. What else does the Team A do well?  
Comment #1 for Question #9
10. What else could the Team A do better?  
Comment #1 for Question #10



**APPENDIX B-6b**  
**Supplier Feedback Results**

## SUPPLIER FEEDBACK RESULTS

for: Team A

Department: Department A

Total number of responses: 1

- 1 = Focus improvement efforts here
- 2 = Sometimes on track & sometimes off
- 3 = Almost there; does this well most of the time
- 4 = Shouldn't change a thing
- 0 = N/A or not enough information to evaluate

### COMMUNICATION

1. The Team A communicates effectively with me.

(we share needed information, get messages across effectively; both orally and in writing)

Average response rates you as "Shouldn't change a thing."

Number of response : 1

Mean : 4.00

Std. : 0.000

Highest response : 4

Lowest response : 4

2. The Team A pays attention to me.

(they actively listen, check for understanding; with both oral & written requests)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 1

Mean : 3.00

Std. : 0.000

Highest response : 3

Lowest response : 3

3. I understand the roles and responsibilities of the Team A.

(charter, products, roles and responsibilities)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 1

Mean : 3.00

Std. : 0.000

Highest response : 3

Lowest response : 3

### CONFLICT MANAGEMENT

4. The Team A cooperates and resolves conflicts constructively.

(they know when it's best to compromise, collaborate in work being done)

Average response rates you as "Shouldn't change a thing."

Number of response : 1

Mean : 4.00

Std. : 0.000

Highest response : 4

Lowest response : 4

## DECISION MAKING

---

5. The Team A makes good decisions.

(stable, based on facts and reason, timely)

Average response rates you as "N/A or not enough information to evaluate."

Number of response : 0

Mean : 0.00

Std. : 0.000

Highest response :

Lowest response :

## TRUST/RESPECT

---

6. The Team A treats others with fairness, trust, and respect.

(they create a supportive environment, show common courtesy)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 1

Mean : 3.00

Std. : 0.000

Highest response : 3

Lowest response : 3

## TEAMING ENVIRONMENT

---

7. The Team A gets the job done effectively.

(they are easy to reach, responsive, attentive)

Average response rates you as "Almost there; does this well most of the time."

Number of response : 1

Mean : 3.00

Std. : 0.000

Highest response : 3

Lowest response : 3

## **OPEN ENDED COMMENTS**

---

Comments about Team A regarding communication?

Comments about Team A regarding conflict management?

Comments about Team A regarding decision making?

Comments about Team A regarding trust/respect?

Comments about Team A regarding teaming environment?

## **OPEN ENDED**

---

8. What else does the Team A do well?

Comment #1 for Question #9

9. What else could the Team A do better?

Comment #1 for Question #10

Which of your customers evaluated you?

---

**APPENDIX B-7a**  
**Other Evaluation Form**



## OTHER EVALUATION FORM

Team Name: Team A

Department: Department A

### COMMUNICATION

---

1. The Team A communicates effectively with me.

(they share needed information, get messages across effectively; both orally and in writing)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

2. The Team A pays attention to me.

(they actively listen, check for understanding; with both oral & written requests)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

3. I understand the roles and responsibilities of the Team A.  
(charter, products, roles and responsibilities)

- ☒ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding communication?

### CONFLICT MANAGEMENT

---

4. The Team A cooperates and resolves conflicts constructively.

(they know when it's best to compromise, collaborate in work being done)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding conflict management?

### DECISION MAKING

---

5. The Team A makes good decisions.  
(stable, based on facts and reason, timely)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding decision making?

#### TRUST/RESPECT

---

6. The Team A treats others with fairness, trust, and respect.  
(they create a supportive environment, show common courtesy)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☒ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding trust/respect?

#### TEAMING ENVIRONMENT

---

7. The Team A gets the job done effectively.  
(they know what needs to be done and do it, step up to challenges when necessary)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☐ Almost there; does this well most of the time
- ☒ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

8. Members of the Team A are accessible when needed.  
(they are easy to reach, responsive, attentive)

- ☐ Focus improvement efforts here
- ☐ Sometimes on track & sometimes off
- ☒ Almost there; does this well most of the time
- ☐ Shouldn't change a thing
- ☐ N/A or not enough information to evaluate

What comments would you like to make about Team A regarding teaming environment?

#### OPEN ENDED

---

9. What else does the Team A do well?  
Comment #1 for Question #9

10. What else could the Team A do better?  
Comment #1 for Question #10



## **APPENDIX B-7b**

### **Other Feedback Results**

## OTHER FEEDBACK RESULTS

for: Team A

Department: Department A

Total number of responses: 1

- 1 = Focus improvement efforts here  
2 = Sometimes on track & sometimes off  
3 = Almost there; does this well most of the time  
4 = Shouldn't change a thing  
0 = N/A or not enough information to evaluate

### COMMUNICATION

1. The Team A communicates effectively with me.  
(they share needed information, get messages across effectively; both orally and in writing)  
Average response rates you as "Shouldn't change a thing."  
Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4
2. The Team A pays attention to me.  
(they actively listen, check for understanding; with both oral & written requests)  
Average response rates you as "Almost there; does this well most of the time."  
Number of response : 1  
Mean : 3.00  
Std. : 0.000  
Highest response : 3  
Lowest response : 3
3. I understand the roles and responsibilities of the Team A.  
(charter, products, roles and responsibilities)  
Average response rates you as "Focus improvement efforts here."  
Number of response : 1  
Mean : 1.00  
Std. : 0.000  
Highest response : 1  
Lowest response : 1

## CONFLICT MANAGEMENT

---

4. The Team A cooperates and resolves conflicts constructively.  
(they know when it's best to compromise, collaborate in work being done)  
Average response rates you as "Shouldn't change a thing."  
Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

## DECISION MAKING

---

5. The Team A makes good decisions.  
(stable, based on facts and reason, timely)  
Average response rates you as "Shouldn't change a thing."  
Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4

## TRUST/RESPECT

---

6. The Team A treats others with fairness, trust, and respect.  
(they create a supportive environment, show common courtesy)  
Average response rates you as "N/A or not enough information to evaluate."  
Number of response : 0  
Mean : 0.00  
Std. : 0.000  
Highest response :  
Lowest response :

## TEAMING ENVIRONMENT

---

7. The Team A gets the job done effectively.  
(they know what needs to be done and do it, step up to challenges when necessary)  
Average response rates you as "Shouldn't change a thing."  
Number of response : 1  
Mean : 4.00  
Std. : 0.000  
Highest response : 4  
Lowest response : 4
8. Members of the Team A are accessible when needed.  
(they are easy to reach, responsive, attentive)  
Average response rates you as "Almost there; does this well most of the time."  
Number of response : 1  
Mean : 3.00  
Std. : 0.000  
Highest response : 3

**Lowest response : 3**

## **OPEN ENDED COMMENTS**

---

Comments about Team A regarding communication?

Comments about Team A regarding conflict management?

Comments about Team A regarding decision making?

Comments about Team A regarding trust/respect?

Comments about Team A regarding teaming environment?

## **OPEN ENDED**

---

9. What else does the Team A do well?

Comment #1 for Question #9

10. What else could the Team A do better?

Comment #1 for Question #10

Which of your customers evaluated you?

---

**APPENDIX B-8a**  
**Session Evaluation Form**



## WE WANT TO KNOW!

Please tell us what you think of the individual and team evaluation process.  
Answer the following questions if applicable.

### Individual Evaluation Process

---

1. Do you feel you get useful information about yourself from this feedback?

- ☐ 1. Strongly Disagree (Not at all useful)
- ☐ 2. Disagree (Not Useful)
- ☐ 3. Neutral (Some of this info. is useful)
- ☐ 4. Agree (Useful)
- ☐ 5. Strongly Agree (This info. is very useful)

2. What could we do to improve the process of evaluating individuals?

### Team Evaluation Process

---

3. Do you feel that teams will get useful information from this process?

- ☐ 1. Strongly Disagree (Not at all useful)
- ☐ 2. Disagree (Not Useful)
- ☐ 3. Neutral (Some of this info. is useful)
- ☐ 4. Agree (Useful)
- ☐ 5. Strongly Agree (This info. is very useful)

4. What could we do to improve the process of evaluating teams?

Press to Quit

**APPENDIX B-8b**  
**Session Evaluation Feedback (Individual Process)**





## SESSION EVALUATION FEEDBACK (SPRING '96)

Number of Rators:412

Number of Responses: 247

59.95%

### Individual Evaluation Process

---

**1. Do you feel you get useful information about yourself from this feedback?**

1. Strongly Disagree (Not at all useful)	15	6.73%
2. Disagree (Not Useful)	15	6.73%
3. Neutral (Some of this info. is useful)	111	49.78%
4. Agree (Useful)	60	26.91%
5. Strongly Agree (This info. is vey useful)	22	9.87%

**2. What could we do to improve the process of evaluating individuals?**

Get rid of it.

I matrix into the team. In this evaluation process, all I can do is input. Why are we only half-part of the process when we're fully part of the team?

If I have a specific beef, I take it up the team management structure. (and I have). The fill-in-the-blank routine makes it hard to communicate a specific message or suggestion. Only the free-form entry really seems worth our while to enter.

Not useful to me, I am a Contract engineer and am not included in this process aidividually.

Suggests you add contractors to the individual appraisal process

Since, with all of your assurances I still feel that my answers can be tracked down to me and I am not about to risk my job I won't be really accurate.

there are no controls or filtering. This program creates such stress that you are likely to get folks who lash out because not only are they frustrated in general, but they also are forced to spend valuable time doing what is perceived to be a non-value added activity. I haven't heard one person say one thing positive about this process. Given that environment, the data is very suspect.

An On-line form at my office PC

et their supervisors rate them based on their productivity not on personal feelings which that individuals may have regarding a team leader. It is not possible to control someones personal feelings that may have been provocate to give a bad rating when you no nothing of the circumstances that may have caused a bad report.

Limit the number of people each can and will evaluate.

the best evaluation of an individual comes from his/her supervisor.Improve that process.

There is not enough time to rate all the folks I work with. I have a feeling other evaluators have the same feeling and don't spend much time on my own evaluation.

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Alter the format.

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Don't make us do this in the middle of crises period, you may get better response

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Go one level lower so that the subteams can evaluate them within a team.

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Have the personnel develop a list of ALL individuals they have interacted with and make that list mandatory that they evaluate everyone on the list. By doing this the responses that we get as feedback should average out the extreme responses.

Have the team members create a list of all personnel they interact with. It should then be mandatory to evaluate everyone on your list (ie. at least everyone in your immediate office). This will average out the extreme responses and provide better feedback.

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List Prime Contractor employees by name.

Maybe add a few personality type questions.

More detailed survey.

More individuals

NA

No comments right now.

Not provide it to mgmt so you get more reliable data.

Not sure

not sure - not a true sample.

once a year is frequent enough

Probably nothing. People just have to take the time to do it.

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Lessen the time allowed, forcing people into deadline for doing this.

not always have the same multiple choice answers

-establish a criteria for these evaluation -too much is left to interpretation

-people can use this who have a ax to grind

NOTHING

Provide some sort of incentive to submit evaluations. Use a Macintosh computer.

Reduce time required.

Separate questions for managers and supervisors since we employees do not receive work from them.

Share the generic information with rest of team.

Show the metrics by which they are being evaluated. Then use the metrics to rate the performance.

simplify if possible

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Don't make it any longer.

Dream up a way to make it entirely painless.

I don't really have any suggestions.

n/a

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Too long.

Use workstations with real mice!

Show feedback resulting from this survey.

## Team Evaluation Process

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### 3. Do you feel that teams will get useful information from this process?

1. Strongly Disagree (Not at all useful)	11	4.80%
2. Disagree (Not Useful)	12	5.24%
3. Neutral (Some of this info. is useful)	99	43.23%
4. Agree (Useful)	89	38.86%
5. Strongly Agree (This info. is vey useful)	18	7.86%

### 4. What could we do to improve the process of evaluating teams?

Get rid of it.

Not much. These things are always just a 'feel good' to make the managers happy.

It really means nothing to me. But my manager said we 'had' to do this.

See the answer to question 2.

Stop! It only creates action items that don't take care of the real concerns. Let the teams figure out what they do well and poorly for themselves

if they don't, someone will come up and tell them.

Stop! It only creates useless action items that do not address the real concerns.

Be more specific in response requirements.

get the feedback to the troops!

look at what they are supposed to do(i.e. team metrics) and how well they do it.

Add to the evaluation what the groundrules are. I think that my team strives to do the best it can, however, present schedules are not allowing us to do this. Being schedule driven creates a hazard within the team in that people make more assumptions and tend to communicate less (e-mail is not read and becomes obe, etc). The team lead becomes another pair of thinking hands that become distracted from team welfare.

The set of groundrules needs to recognize items as decribed above and give the reviewer a set of criteria thorough which the evaluation becomes more pertinent to the job at hand.

Don't really understand the benefit of this process. As I recall, the fundamental concept of IPT's and AIT's was that each team would be active in evaluating members' performance. How does this process differ from or add to that?

Evaluate metrics based on responsibilities

Feel that this is a good start

get all members involved

Get my team on the list.

Have minimum of stations available at all times to make data collection a continuous process.

Sincerely using the information collected.

Have each evaluator provide unambiguous comments.

I don't know. I wish I did. this is probably the best way, but I'm still a little uncomfortable with it.

make comments to answers mandatory for answers that rate less that a (3)... if the rating is good then there are no commenst required. why: we are in a teaming environment and should be willing to help others solve the problems we point out!! ust throwing stones is easy... don't let folks throw stones unless they are without sin (which none of us are) or can offer s olution. Make it available year round and allow individuals to schedule when they evaluate. Don't limit to once a year.

make sure everyone participates.

More detailed survey.

not sure - not a true sample.

Observation: It's interesting that management wants to evaluate team performance yet hires "old-school" managers (who do not necessarily buy-in to the team concept) to lead key teams such as the VIPT and CM AIT. Mgmt.'s views on teaming certainly impact how well NASA and

Boeing individuals function together as a team. Hopefully, all newly hired mgrs will be required to take IPT training. Re: improving process, it might be more useful to evaluate teams after the reorganizations in O&U and Veh. Ofc. have been completed and stabilized. (This assumes that the BMO reorganization has indeed stabilized.)

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Probably nothing. People just have to take the time to give a reasonable evaluation.

Provide capability to evaluate teams in groups. For example, I would have liked to evaluate GN&C AIT and GN&C analysis together since they have a significant overlap in personnel and activities.

This is obviously only useful if the team lead shares the results with the team. I don't know if many will. Additionally, thanks to the constant reorganization of the Station Program, I think this evaluation may be OBE in many cases.

Too many teams to get good team to team comments. Need another technique like Valentines etc.

- ask more detailed questions

- provide a few more instructions

- it was helpful having assistance present

Add more questions that are more detailed and specific. This should be quicker (questions acts as prompts) and more informative to the teams.

better focused answers to go with question

Continue this process yearly.

Do this twice a year.

Ensure that team leads read this information, and actively try to implement suggestions.

Ensure the recommendations are forwarded to the appropriate IPTs.

I think the information would be very valuable, if it could be quantified (not to an individual level, but at least to an IPT or group level)

EXAMPLE: I could better evaluate the responses and make improvements if I knew the information originated within the team vs. external to it (the same response could result in different action depending on source)

Let the team pull together a team to address inputs (positive/negative) for corrective action.

List of team responsibilities, and events which affected team's activities.

MAKE THE RESPONSES TO THE SURVEY MORE VISIBLE, ESPECIALLY WHERE SOME KIND OF PROACTIVE CHANGE IS INITIATED. I'VE SEEN TOO MANY SURVEYS TAKEN, SEVERAL MONTHS AFTER WHICH, THE RESPONDENTS ASK "WHAT EVER BECAME OF THAT SURVEY WE TOOK?"

No recommendations to date.

NOTHING

See comment on 2.

The process does not provide for addressing general comments about the program or program management (ie it is my opinion that there is at best a very weak process for integrating the system design / program.) It was not clear how to inject this into the evaluation process.

Twice a year process is good so that teams can use the information to put together action plans for improvement if necessary and have feedback again in a few months to see if they've been successful. Also, providing evaluators with reminders of who they evaluated would help us in 6 mos to make sure we evaluate the same groups/individuals

When data has been reduced, share statistical information across ISS Program. Response to these kinds of surveys must be shared with the participants in order to make them useful.

Finally, a commitment by management to respond to suggestions for improvement is very important. Unless some action results, there will be even less participation in the next one.

Would like ability to give feedback to contractors on individual performance

Make the teams deal with the problems highlighted in the survey

Process seems good with computers and also electronically sending it or mailing it.

I like the TEAM EVALUATIONS much better than individual evaluations. Many of the challenges faced in this program are due to team interaction (not individuals). Need to make sure the team

list is accurate and complete. For example, the EVR AIT wasn't listed, but an EVR IPT (of which I've never heard of) was--I assume the EVR IPT was supposed to be the EVR AIT (although the NASA lead was different.)

none

n/a

People feel that because you enter your social security number that privacy is not maintained. Something should be done to help alleviate those fears. Say, have the developers named explicitly with statements stating what the social security numbers are used for. Even go so far as state the algorithms/logic flows that are employed. Actions taken such as this will help ease the concern. Until those fears are addressed the results will never be accurate

Provide a hard copy of the team structure for new comers to the program who might be providing and evaluation for the first time.

**APPENDIX B-8c**  
**Session Evaluation Feedback (Team Process)**



## SESSION EVALUATION FEEDBACK (SPRING '96)

Number of Rators:412

Number of Responses: 247

59.95%

### Team Evaluation Process

#### 1. Do you feel you get useful information about yourself from this feedback?

1. Strongly Disagree (Not at all useful)	15	6.73%
2. Disagree (Not Useful)	15	6.73%
3. Neutral (Some of this info. is useful)	111	49.78%
4. Agree (Useful)	60	26.91%
5. Strongly Agree (This info. is vey useful)	22	9.87%

#### 2. What could we do to improve the process of evaluating individuals?

Get rid of it.

I matrix into the team. In this evaluation process, all I can do is input. Why are we only half-part of the process when we're fully part of the team?

If I have a specific beef, I take it up the team management structure. (and I have). The fill-in-the-blank routine makes it hard to communicate a specific message or suggestion. Only the free-form entry really seems worth our while to enter.

Not useful to me, I am a Contract engineer and am not included in this process aidividually.

Suggests you add contractors to the individual appraisal process

Since, with all of your assurances I still feel that my answers can be tracked down to me and I am not about to risk my job I won't be really accurate.

there are no controls or filtering. This program creates such stress that you are likely to get folks who lash out because not only are they frustrated in general, but they also are forced to spend valuable time doing what is perceived to be a non-value added activity. I haven't heard one person say one thing positive about this process. Given that environment, the data is very suspect.

An On-line form at my office PC

et their supervisors rate them based on their productivity not on personal feelings which that individuals may have regarding a team leader. It is not possible to control someones personal feelings that may have been provocate to give a bad rating when you no nothing of the circumstances that may have caused a bad report.

Limit the number of people each can and will evaluate.

the best evaluation of an individual comes from his/her supervisor.Improve that process.

There is not enough time to rate all the folks I work with. I have a feeling other evaluators have the same feeling and don't spend much time on my own evaluation.

This type of reveiw can be dangerous. From comments, one can deduce who provided negative feedback. This can cause hardfeelings in the organization. I think focus groups where folks get together to work out problems are more productive. Team leads need to hold these type of "retreats with their team and take issues forward issues to management. Make this part of the leaders and supervisors performance plans. A standard template and report could be required.

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Alter the format.

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More detailed survey.

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Lessen the time allowed, forcing people into deadline for doing this.

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NOTHING

Provide some sort of incentive to submit evaluations. Use a Macintosh computer.

Reduce time required.

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Provide a hard copy of the team structure for new comers to the program who might be providing and evaluation for the first time.

# **APPENDIX C**

## **Second Peer Evaluation Schedule**

***Original Schedule for IR13.A***

The timetable, subject to change due to furloughs of the Federal Government, is as follows.

December 11 - 15: Meet with appropriate JSC personnel to discuss needs and options; create Lotus views and forms templates and start developing those templates

December 18 - 22: Receive the final version of the set of survey questions from JSC; develop Lotus question forms, output forms and statistics forms and statistics forms views

December 26 - 29: Receive data from JSC and import data into Lotus; create security forms Lotus views and begin security testing

January 2 - 5: Continue with security programming development and Lotus forms and views; install applications on the portable computer system; test the demonstration; perform a test demo on site at JSC on 1/5/96

January 8-12: Make any necessary modifications as requested as a result of the demo; create poster instruction "help sheets" for the room where the survey will be held, set up the survey site at JSC and on 1/10/96 perform a final demo at JSC and install the survey on site.

January 16 - February 19 Test and finalize survey and check for system stability

January 22 - February 9 Conduct survey

February 9-23 Analyze Data, printout survey, backup data

February 23 - May 31 Train student on Lotus Notes and explore distributed possibilities of Lotus Notes and other groupware software

## Appendix One: Portable GSS Training Support Handbook

### Step 1:

- Unpack computers from (nine notebook workstations and one server) cases and sequentially arrange in a row.

### Step 2:

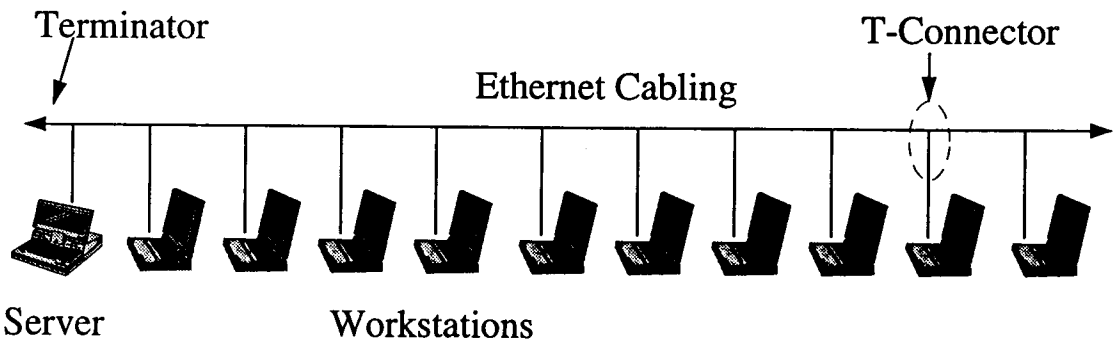
#### **Server -**

- Open left side door to access the system's PCMCIA socket.
- Insert PCMCIA ethernet card (facing up).
- Connect the patch cable's Honda connector to the ethernet card.
- Connect the 10Base-2 coax cable and the T-connector to the patch cable; this 10Base-2 cable should have a RED terminator on each end.
- Connect power supply to the back of the server.

### Step 3:

#### **Workstation Connection -**

- Open left side door side to access system's PCMCIA socket.
- The PCMCIA ethernet card should already been installed in the socket.
- Connect the Honda connectors to the card.
- Repeat for all laptops to be used.
- Interconnect all T-connectors with the thin net cables (black cables) to form a configuration as shown in the following figure:



- Remove one of the red terminator from the server and attach it to the last workstation of the network.

### Step 4:

- Attach power supplies to the rear of all computers.

### Step 5:

- Connect panel book - LCD panel to the video port in the facilitator terminal.

### Step 6:

- Turn the power on in the server.
- At opening menu (only if system has been reconfigured for Lotus Notes in previous session), select  
"1. Reconfigure the system to run Novell"
- Start Novell server.



**Step 7:**

- Turn the power on in work stations.
- At opening menu (only if system has been reconfigured for Lotus Notes in previous session), select  
“1. Reconfigure the system to run Novell”
- Start Windows for Workgroups. Username for Workgroups is TERMINAL X where X is from 1 to 10, and the password is teamwork.

**Step 8:**

**Software setup-**

- Start group systems for windows.
- Username for facilitator terminal is “leader”, and omit password (blank).
- Username for user terminals are sequential numbers from 1 through 8, and omit password (blank).

**Step 9:**

**Shut down process for workstations-**

- Stop all participants from the facilitator terminal.
- Release participant ready screen from the facilitator terminal. (optionally, press CTRL-HOME at each terminal).
- Exit GroupSystems from the leader terminal.
- Exit Windows.
- Logout all workstations from the server.
- Turn power off at all workstations.
- Disconnect and pack panel book - LCD panel.

**Step 10:**

**Shut down process for server -**

- Type “Down” at the server to shut down the server.
- Turn power off at the server.

**Step 11:**

**Packing system for transportation (Server) -**

- Disconnect power supply at the back of the server lap top.
- Disconnect ethernet cable attached to the workstation, and connect the two red terminators to both ends of the T-connector.
- Remove ethernet card and put in carrying case.
- Close ethernet socket door.
- Pack computer and power supply in carrying case.

**Step 12:**

**Packing system for transportation (workstation) -**

- Disconnect all T-connectors attached to the thin net cables (black cables).
- Repeat for all lap tops used.
- Disconnect the ethernet connectors from the card (do not remove ethernet card).

- Close ethernet socket door.
- Pack computer and power supply in carrying case.
- Remove red terminator from the server and attach the server to the end of the network.
- Connect the removed terminator described above to the other end of the cable.

## **Appendix Two: Introduction for Participants Using GroupSystems for Windows**

*The facilitator will read the appropriate sections of the following script. As the script is read the participants will see screen views of the tools projected on the front central projection screen in the meeting room.*

Group Systems for windows consists of 5 tools which help meeting participants diverge and/or converge information. The 5 tools are:

1. Electronic Brainstorming
2. Categorizer
3. Topic Commenter
4. Group Outliner
5. Vote

The 5 tools represent two types of functional activities.

1. Idea Generating/Gathering.
2. Decision Making

### **1. Idea generating/gathering (Diverging) Tools**

#### **1.1 Electronic Brainstorming**

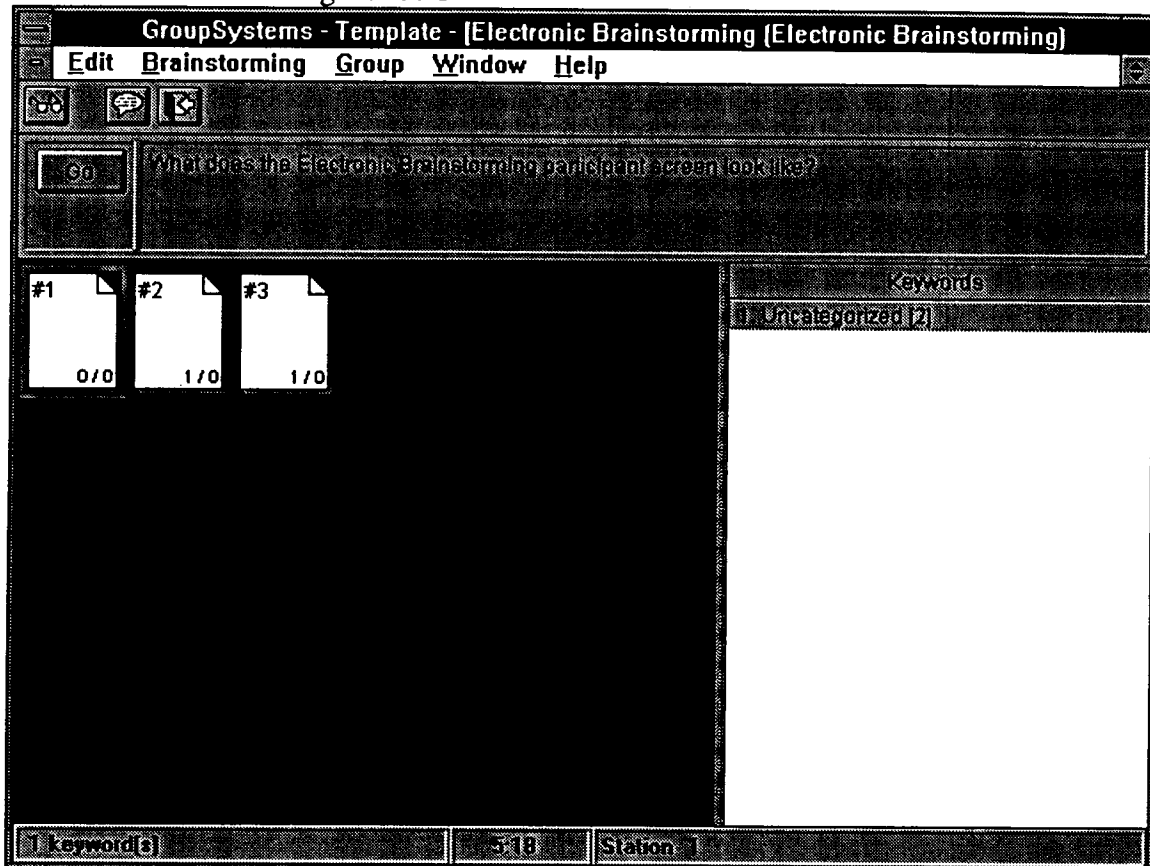
Electronic Brainstorming is an idea-generating tool that allows participants to share ideas simultaneously and anonymously on a specific question posed to the group. Using their keyboards, participants engage in an electronic discussion of a question; they are able to contribute ideas at the same time with no loss of information, unlike traditional brainstorming sessions.

*(Slide 1)* The leader enters a question or issue to provide a stimulus for participants. In this case the question is "what does the electronic brainstorming participant screen look like?" The electronic equivalent of sheets of paper are distributed, one per participant. After a participant enters an idea, the discussion sheet is exchanged for another; this sheet may display an idea entered by another participant. *(Slide 2)* The participant can comment on the existing response or can begin a new line of thought. As the activity progresses, each discussion sheet gathers an assortment of ideas which can spark responses in strikingly different directions.

*(Slide 3)* Participant ideas can be categorized by comments using keywords. When you add a keyword, the uncategorized comments are searched for occurrences of the keyword. If the keyword is found, the comment is taken from the uncategorized comments and grouped under the keyword. *(Slide 4)*

A dialog on the electronic sheets of paper is demonstrated at this point. *(Slide 5)*

## Electronic Brainstorming - Slide 1



## Electronic Brainstorming - Slide 2

GroupSystems

Edit Brainstorming

Discussion #3

Edit Comment

0/0 Discussion #3

#1 #2 #3

0/0 1/0 0/

The default opening screen has three buttons (Open selected keyword comments, View instructions, Close activity window)

Submit Edit Keywords Pause Help

# Electronic Brainstorming - Slide 3

GroupSystems

Edit Brainstorming

1/0

0/0

In Use

1/0

Discussion #2

Edit Comment

1/0

Discussion #2

1

2

3

Keywords

1

2

3

OK

Cancel

Help

3 Discussions, 2 Ideas

Submit

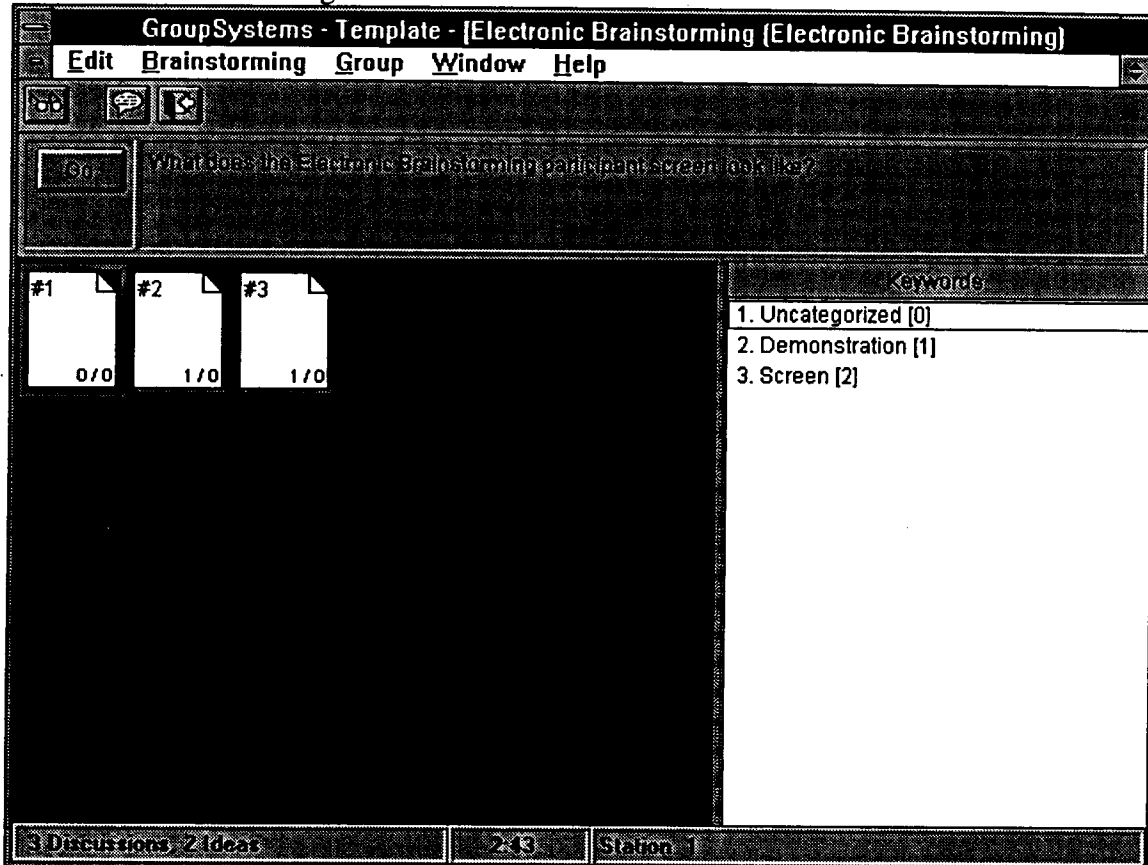
Cancel

Keywords

Pause

Help

## Electronic Brainstorming - Slide 4



[illegible]



## **1.2 Categorizer**

*(Slide 1)* The Categorizer helps groups in three common group activities:

1. Generating lists of ideas
2. Brainstorming comments which elaborate on or support the ideas
3. Creating categories for the ideas.

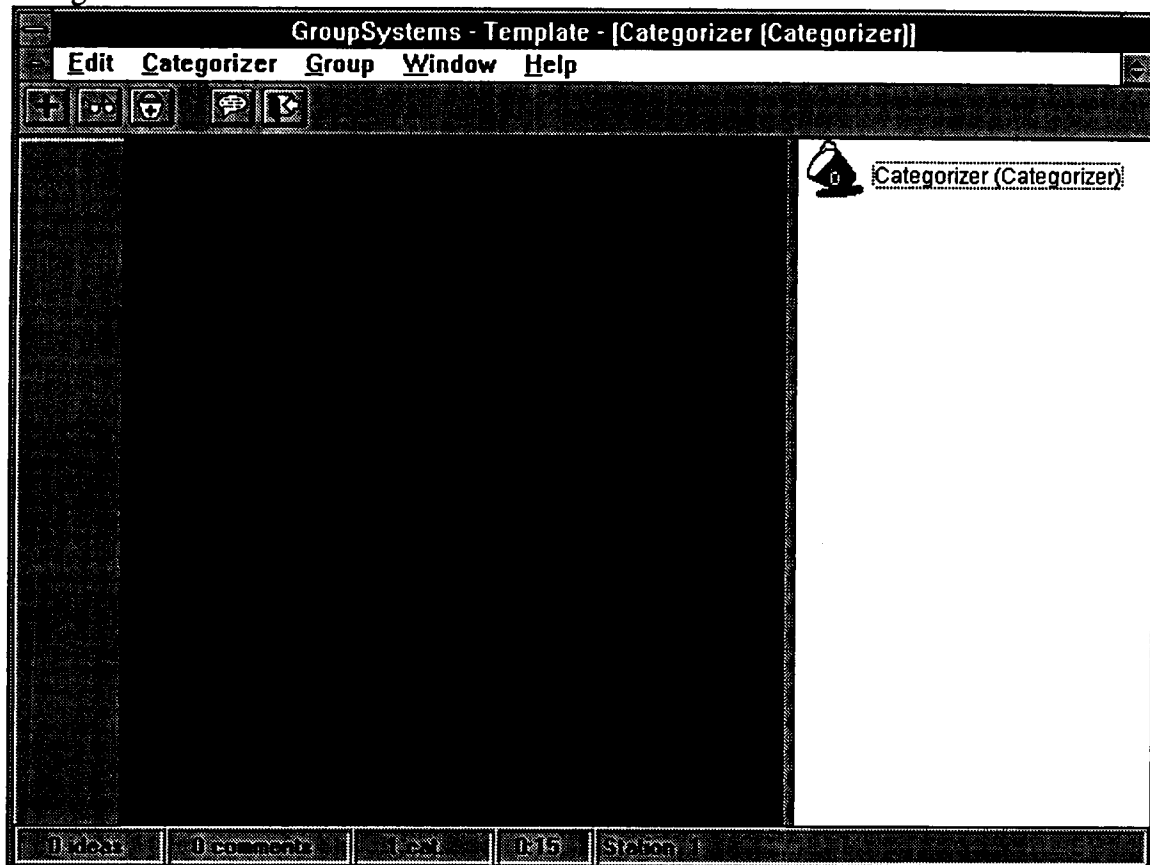
The categorizer is a tool that can be used in a variety of ways.

*(Slide 2)* In the list-building mode, each participant enters ideas related to the issue being considered by the group. These ideas are added directly to the group list. It is possible to edit the group list to consolidate similar ideas, make it more manageable and add comments to any idea on the list. The leader also can bring in a list from another activity.

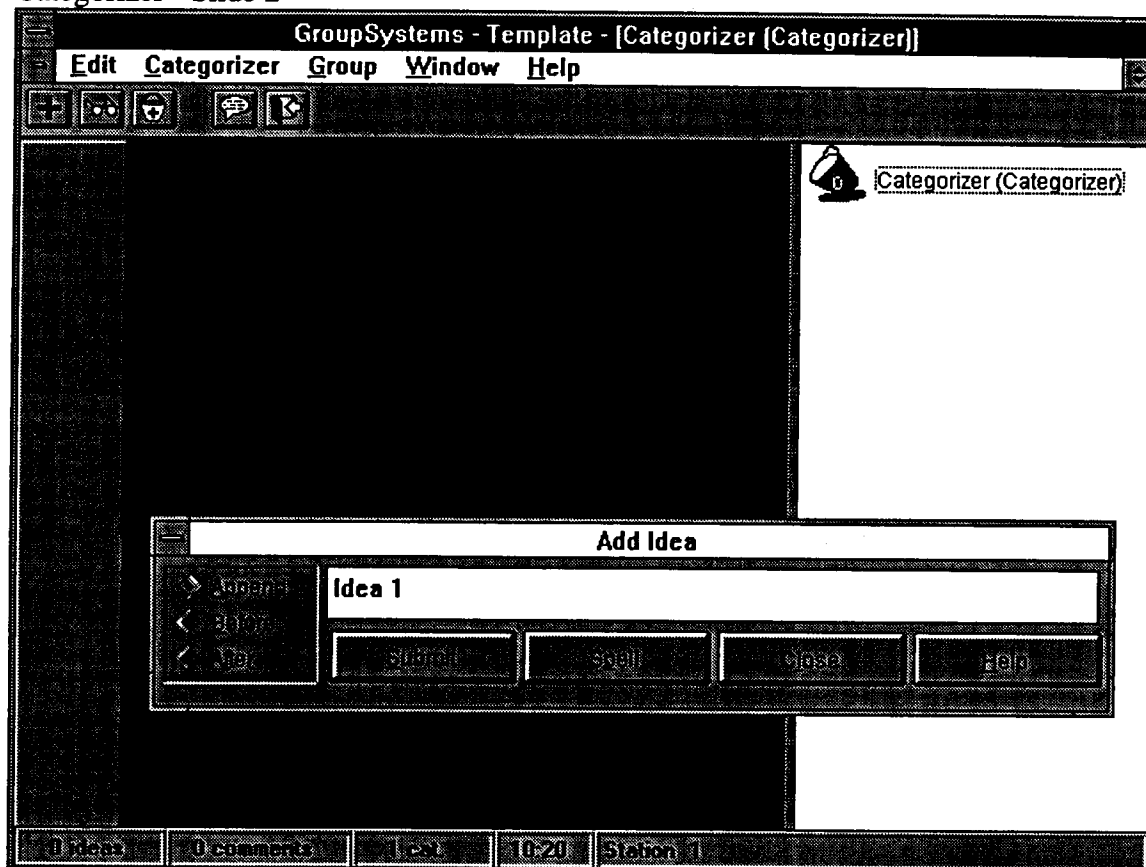
*(Slide 3)* In categorizing mode, participants can create categories which relate to the ideas on a list that they built, or which was shifted from another GroupSystems activity. They then can copy the ideas to the appropriate category. *(Slide 4)*

The participants also can work from the top down, by first entering or having the group create the categories, and then adding ideas and comments appropriate to each category. *(Slide 5)*

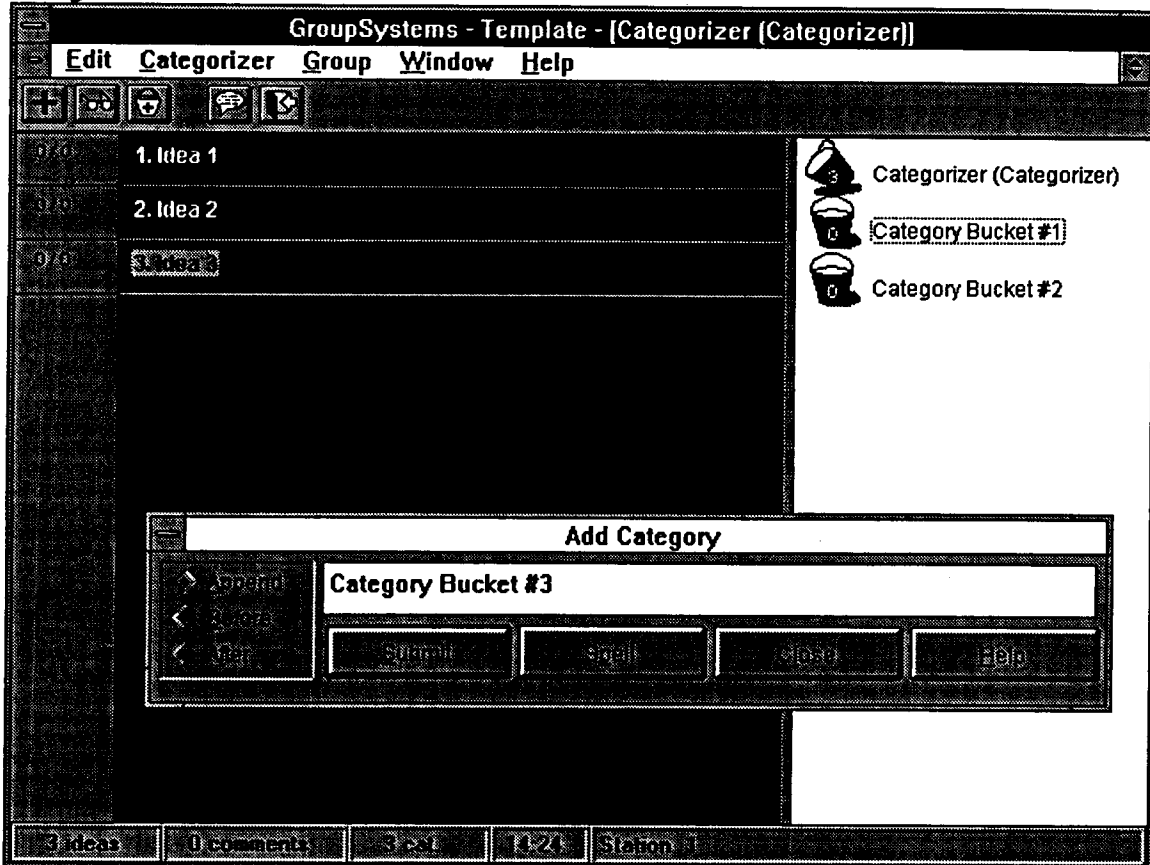
## Categorizer- Slide 1



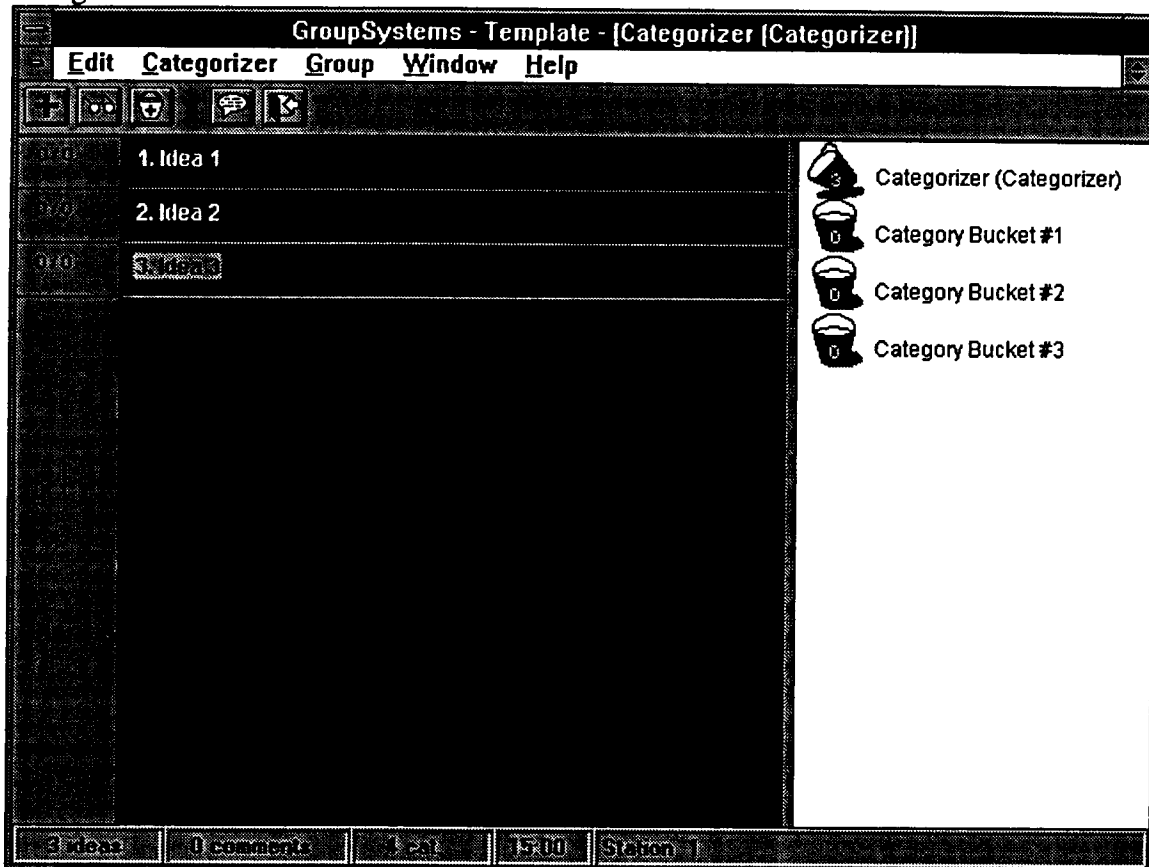
## Categorizer - Slide 2



### Categorizer - Slide 3



## Categorizer - Slide 4



**Gr**

**Idea 1**

**Edit Categorizer Comment**

**2 / 1**

**Idea 1**

**1. Idea 1**

**2. Idea 2**

**3. Idea 3**

**Comment #1 for Idea #1**

**Comment #2 for Idea #1**

**Comment #3 for idea #1**

**3 ideas** **2 comments** **Submit** **Edit** **Previous** **Next** **Close** **Help**

### **1.3 Topic Commenter**

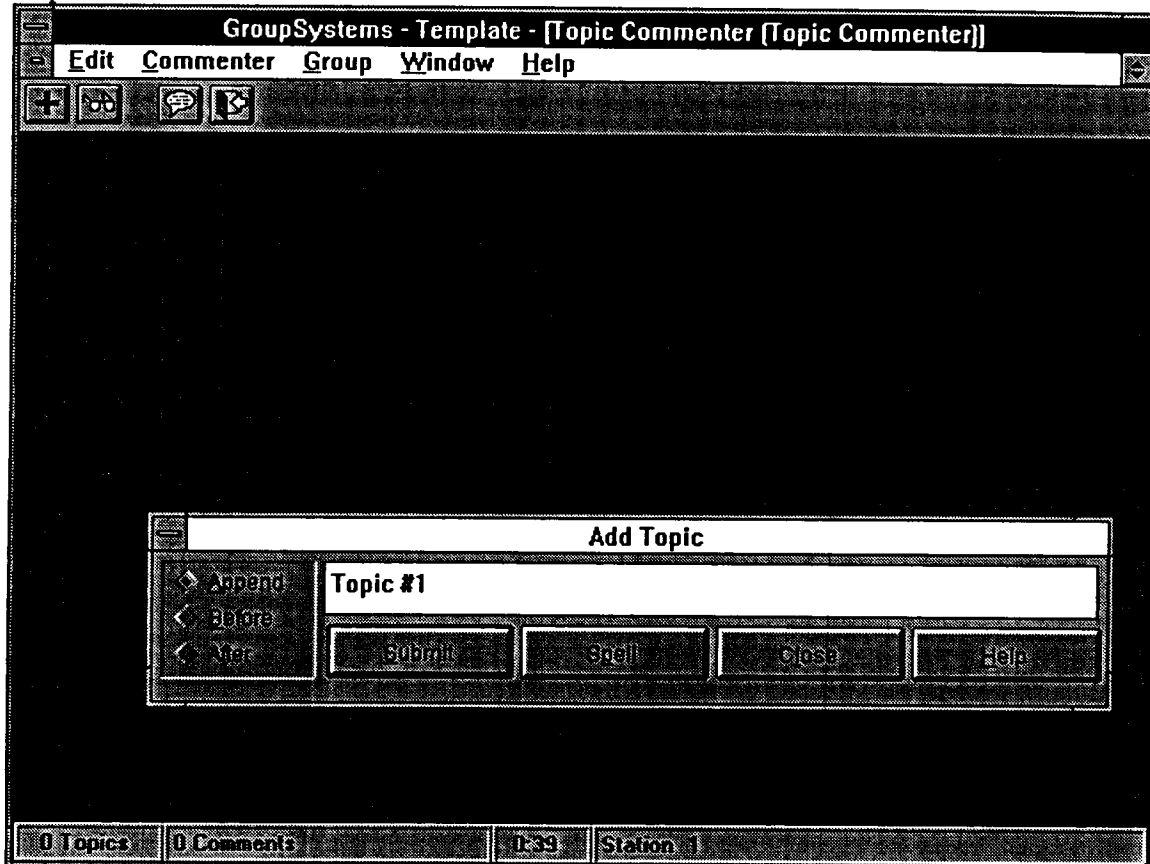
*(Slide 1)* Topic Commenter helps the group generate lists of topics and add comments which elaborate on or support the topics. Compared to the free-form method of Electronic Brainstorming, Topic Commenter is more focused. It is similar to Group Outliner, but without the ability to subordinate one topic to another.

Each participant is given the electronic equivalent of a set of lined sheets labeled with topics. The topics can be entered in by the meeting participants or imported prior to starting the meeting. Participants comment on the topics in any order they choose. *(Slide 2)*

For example, a rank-ordered list from Vote can be shifted into Topic Commenter for detailed participant input on the highest ranked items. Headings for a report also can be used as topics on which the appropriate experts enter details, in order to assemble the facts necessary for the report quickly and easily.

Each participant is given the electronic equivalent of a set of index cards labeled with topic titles. *(Slide 3)* Participants comment on the topics and may view the comments of others in the group. The end result is a comprehensive accumulation of ideas from the entire group. *(Slide 4)*

Topic Commenter - Slide 1





## Topic Commenter - Slide 2

GroupSystems - Template - [Topic Commenter (Topic Commenter)]

Edit Commenter Group Window Help

0/0

Topic #1

Topic #2

Append Before After

Submit Spell Close Help

1 Topics 0 Comments 1-44 Station 1

Topic Commenter - Slide 3

GroupSystems - Template - [Topic Commenter (Topic Commenter)]

Edit Commenter Group Window Help

0/0 Topic #1

0/0 Topic #2

0/0 Topic #3

0/0

4 Topics 0 Comments 3:50 Station 1

The screenshot displays the GroupSynergy application window. The title bar reads "GroupSynergy". The main window is divided into several sections:

- Top Bar:** Contains the text "Topic #1" and a "Print" icon.
- Left Panel:** A hierarchical list of topics and comments.
  - 3/1 Topic #1
  - 0/0 Topic #2
  - 0/0 Topic #3
  - 0/0 Topic #4
- Right Panel:** Displays the content of the selected topic.
  - 3/1 Topic #1: Shows a list of comments:
    - Comment #1 for Topic #1
    - Comment #2 for Topic #1
    - Comment #3 for Topic #1
  - 0/0 Topic #4: Shows a large text area with the text "Comment #4 for Topic #1".
- Bottom Bar:** Contains navigation buttons: "Search", "Spell", "Previous", "Next", "Close", and "Help".

## **1.4 Group Outliner**

Group Outliner helps groups generate and/or organize ideas. It is well suited to filling in the details of a business plan or research proposal when the general outline is known. Comments or details then can be quickly generated by participants.

As an idea generating and information gathering tool, Group Outliner functions much like Topic Commenter, in which participants enter comments about topics on a list. *(Slide 1)* Unlike Topic Commenter, however, each Group Outliner topic can have subtopics arranged in the familiar hierarchical structure of an outline. *(Slide 2)* Thus, the idea generation process is more highly structured than that of either Electronic Brainstorming or Topic Commenter.

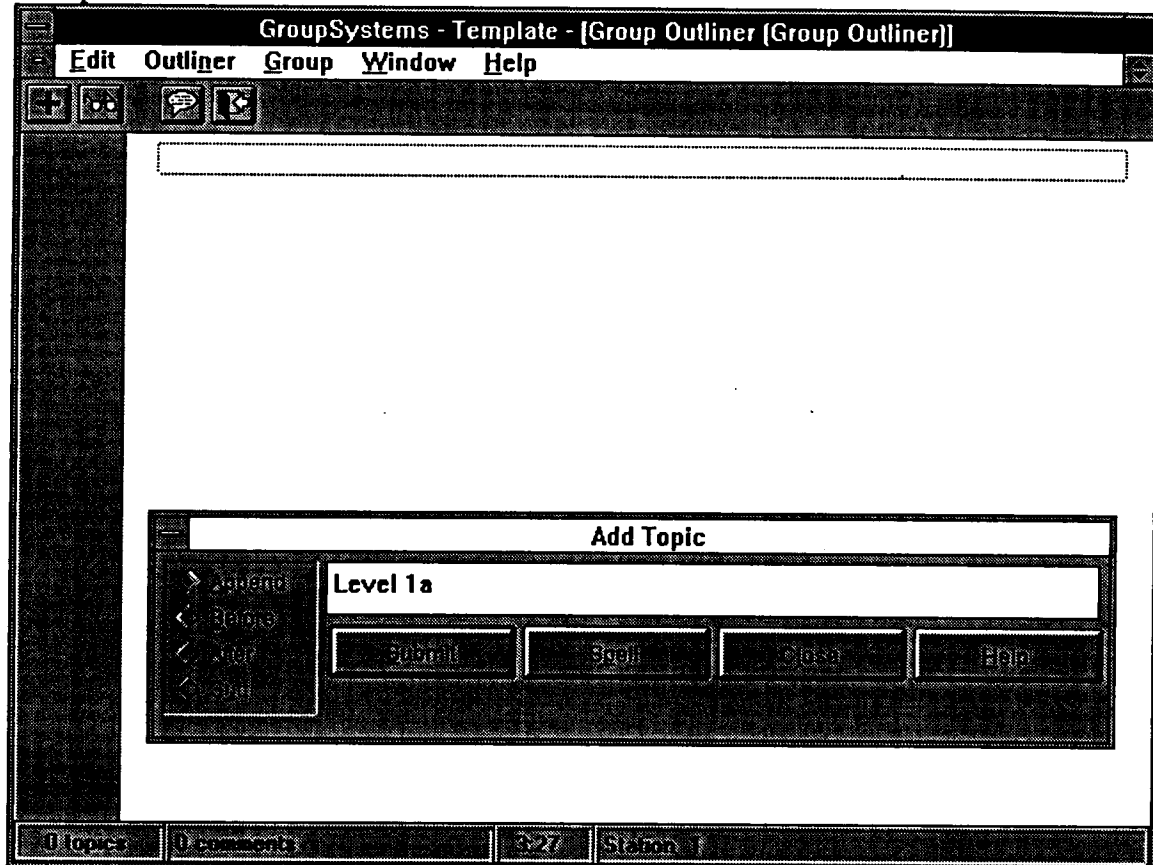
A **topic** is any item on the outline. Topics that branch off from another topic (which is the parent topic) are referred to as subtopics. Therefore, an outline item can be considered either a topic or a subtopic, depending upon the point of reference.

The same is true of **levels** and **sublevels**. A level is a topic, or list of topics, linked by a vertical line on the outline. A sublevel is a subtopic, or list of subtopics, linked by a vertical line.

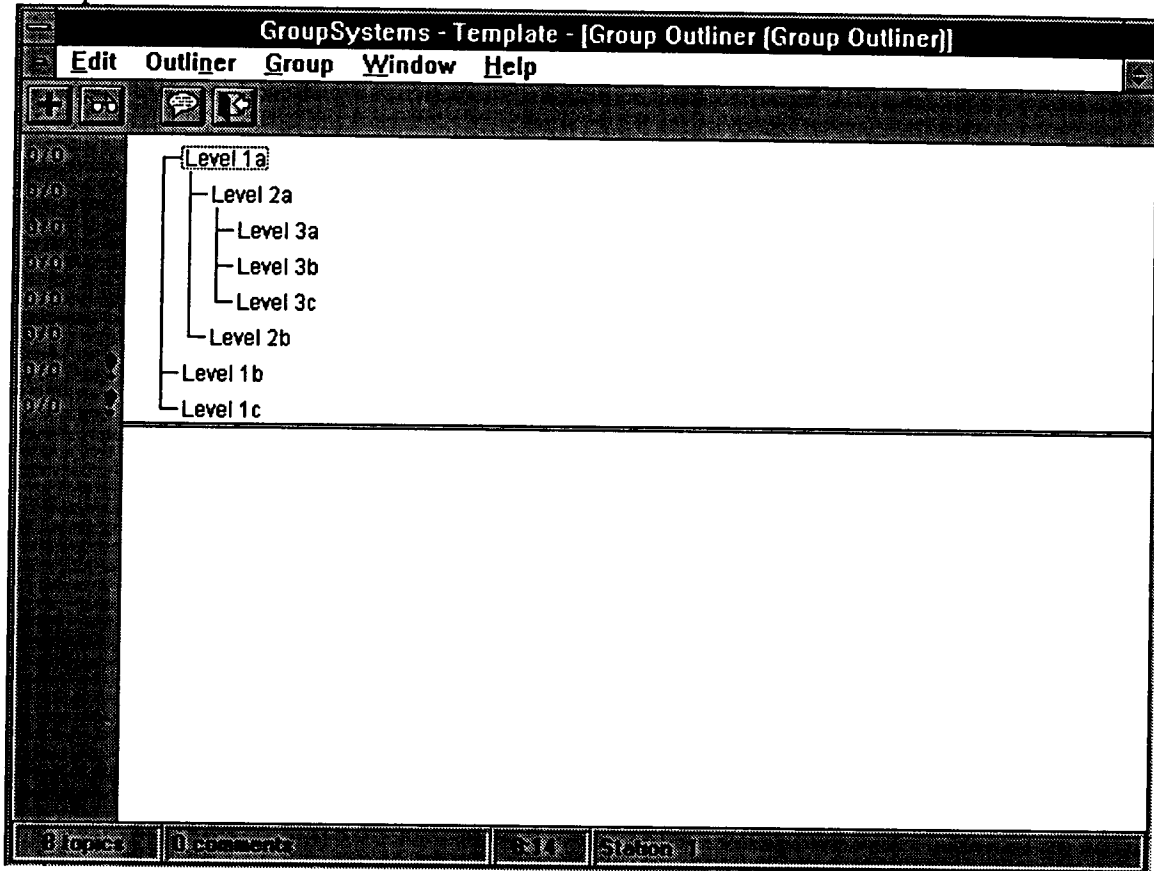
Levels are referred to by numbers in the topics editor. The main topic of the outline, or session name, is level 1. The other levels are numbered to level 8 according to their place in the hierarchy. *(Slide 3)*

Starting with the idea under discussion, or from a partial outline, participants suggest topics and subtopics to be organized in outline form. Participants can then enter comments about each topic and subtopic. *(Slide 4)*

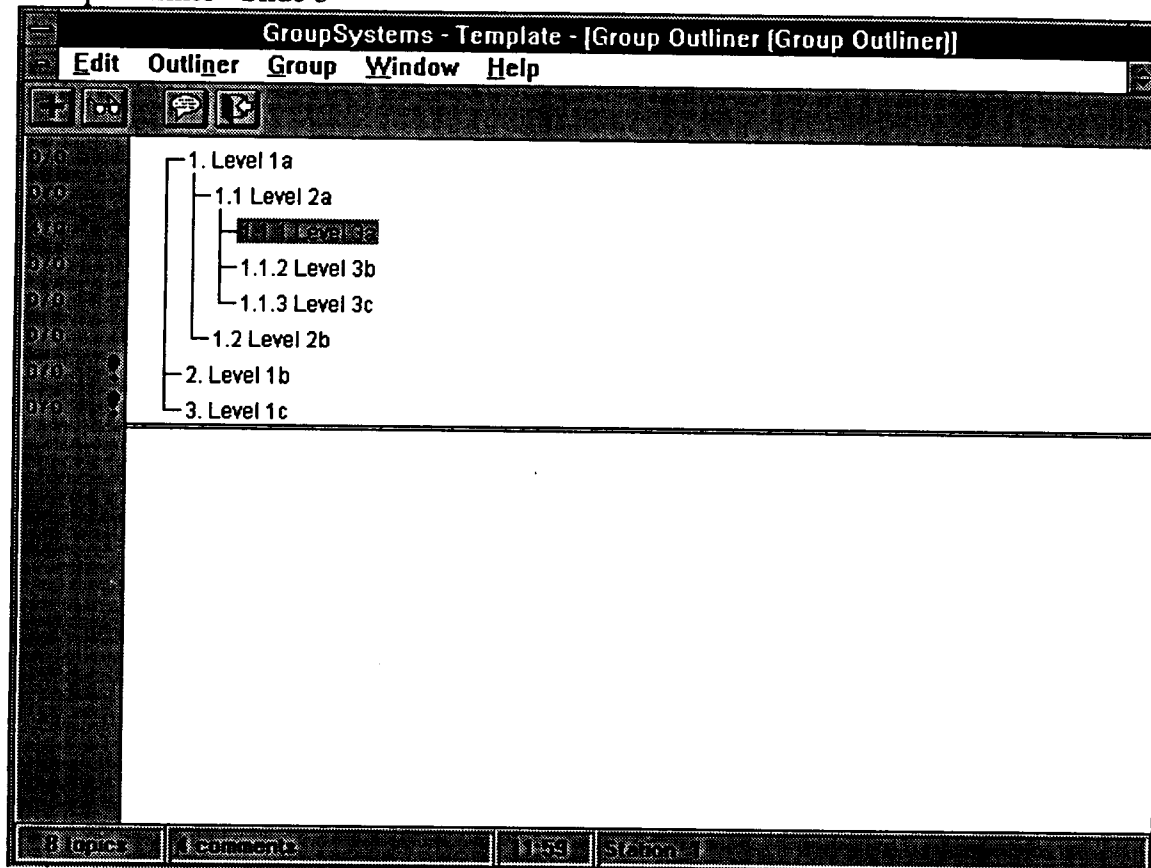
## Group Outliner - Slide 1



## Group Outliner - Slide 2



## Group Outliner - Slide 3



# Group Outliner - Slide 4

Group

Level 3a

Edit Outliner Group

Edit Comment

3 / 2

Level 3a

•

Comment #1 for Level 3a

•

Comment #2 for Level 3a

•

Comment #3 for Level 3a

Level 1a

Level 2a

Level 3b

Level 3c

Level 2b

Level 1b

Level 1c

Comment #4 for Level 3a

Submit

Save

Previous

Next

Close

Help



## **2. Decision Making (Converging) Tools**

The Vote tool represents the decision making part of Group Systems.

These are demonstrated for each voting tool by the “nView” slide show presentation diskettes included with this report.

All the vote tools follow a similar pattern.

- Step 1: Create a list of vote items. (Slide 1)*
- Step 2: Add supporting comments to the list of vote items. (Slide 2)*
- Step 3: The technical facilitator shifts the mode from a list building to a vote mode, and the participants cast the vote. (Slide 3)*
- Step 4: The vote spread and statistical results are viewed by the group. (Slide 4)*
- Step 5: The vote graph results are viewed by the group. (Slide 5)*

The slides that follow provide a representative view of how all the vote tools will appear. For specific views, run the diskettes that accompany this report.

## Vote - Slide 1

GroupSystems - Template - [Vote [Vote]]

Edit Vote Group Window Help

List

Item #1

Submit

Cancel

Close

Help

0 topics

0 comments

7:10

Station 1

[illegible]

# Vote - Slide 3

GroupSystems - Template - [Vote [Vote]]				
Edit Vote Group Window Help				
Rank Order				
1. Item #2				
2. Item #1				
3. Item #3				
4. Item #4				
13:04	comment	Rank	13:04	Station 1

# Vote - Slide 4

Vote Spread - Vote [Vote]											
	Ballot Item	1	2	3	4	Rank Sum	Mean	STD	n	You	Zval
1	Item #2	2	0	0	0	8	1.00	0.00	2	1	0.00
2	Item #1	0	1	1	0	5	2.50	0.71	2	2	-0.71
3	Item #3	0	1	1	0	5	2.50	0.71	2	3	0.71
4	Item #4	0	0	0	2	2	4.00	0.00	2	4	0.00

Selected row:

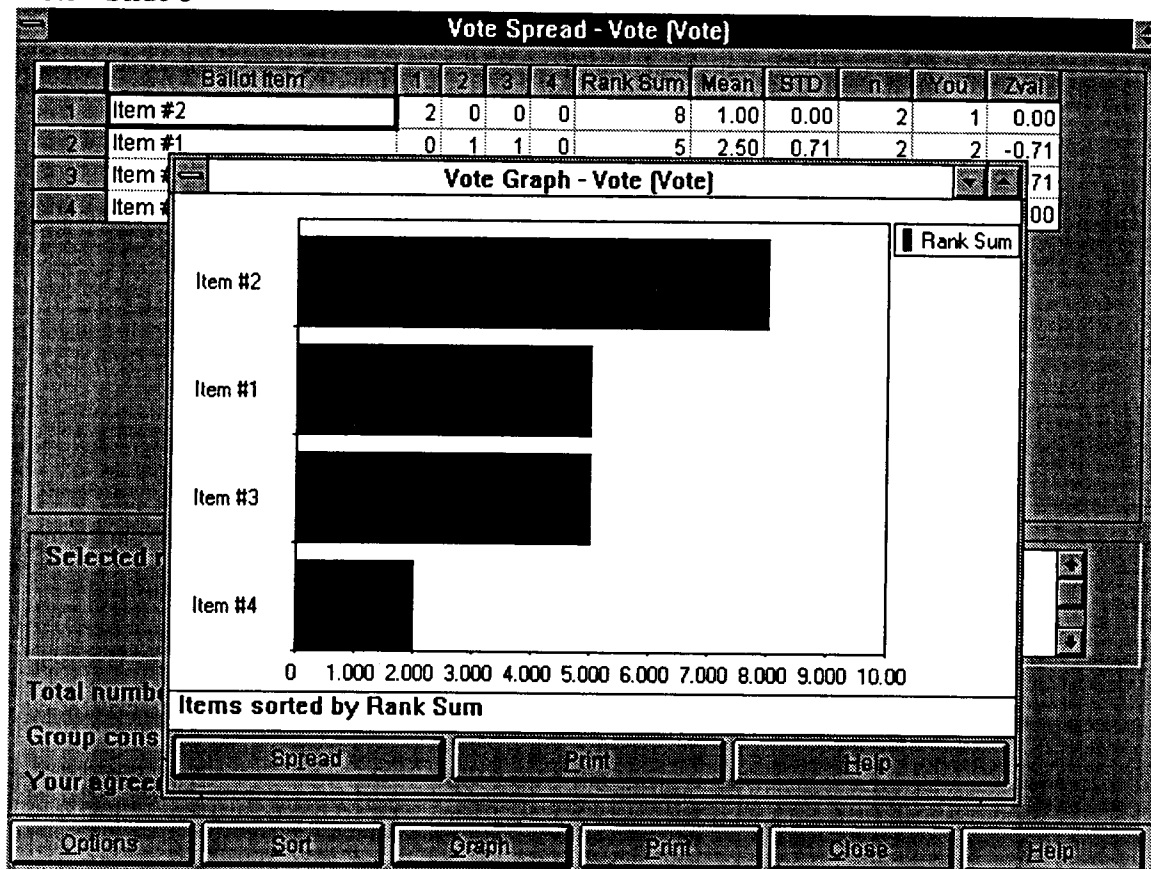
Total number of voters [N]: 2

Group consensus (1.00 = most consensus): 0.90

Your agreement with the group results: 1.00

Options   Sort   Graph   Print   Close   Help

# Vote - Slide 5



## 2.1 Vote

Vote offers a variety of methods for polling group opinion, on one or many issues. You can select from the following eight voting methods:

### 1. Rank Order

A voting method in which you reorganize a list of ballot items by dragging items to the desired position.

### 2. 10-Point Scale

A voting method in which you rate each item in a list using an integer scale from one (low) to ten (high).

### 3. Multiple Selection

A voting method in which responses are selected from a list of ballot items. You can choose one or several items, based on the number of choices the leader specifies.

### 4. Yes/No

A voting method in which each item on the list is a question to which you respond "Yes" or "No".

### 5. True/False

A voting method in which each item on the list is a question to which you respond "True" or "False".

### 6. Agree/Disagree (5-point )

A voting method in which you indicate the extent of your agreement (Strongly Agree, Agree, ...) with each item on the list. In this method *Strongly Agree* is given a weight of 5, *Agree* is 4, etc.

### 7. Agree/Disagree (4-point)

A voting method in which you indicate the extent of your agreement (Strongly Agree, Agree, ...) with each item on the list. In this method *Strongly Agree* is given a weight of 4, *Agree* is 3, etc.

### 8. Custom Method

A voting method that the leader can customize to meet the needs of the group.

As the name implies, Vote is an evaluation tool, capable of providing the basis for a group decision. This tool also is commonly used to determine the degree of group consensus. Vote can be utilized periodically following discussions to determine whether the group consensus has shifted. Another way to use Vote is as an information-gathering tool in much the same way as an opinion poll.

To use Vote, the leader enters the list of ballot items and selects a voting method. You can add supporting comments for ballot items to clarify the meaning or significance of the items. You can add supporting comments to any ballot item on the list, or view the existing comments about an item. Comments can be added only during list-building mode but can be viewed at any time, even while in voting mode.

While you are in list-building mode, information markers guide you to comments you have not viewed. For each ballot item, the total number of comments and the number of new comments appear beside the ballot item name.

Participants enter their choices according to the type of vote chosen. Results can be viewed in a vote spread matrix or graph.

Ballots are collected automatically as they are cast. In voting mode, you can view the cumulative results of all votes in both graphical and statistical forms. If additional ballots are cast while you are viewing results, the results are updated automatically. Although this feature will be used primarily by the leader, he or she may give participants the option to view results as well, using the View Results group setting. When you choose View Results from the Vote menu, the **"Vote Graph"** window appears, overlaying the **"Vote Spread"** window, and providing **"Vote Statistics"**.

The criterion by which results on both windows are arranged depends on the selected voting method. You can sort voting results by any of the statistics available on the Vote Spread window.

#### 1. **Vote Graph Window**

The Vote Graph window displays the voting results in a horizontal bar graph.

#### 2. **Vote Spread Window**

The Vote Spread window displays statistical information about the voting results. The statistics displayed in the Vote Spread window depend on the voting method.

A voting matrix is available for Rank Order, 10-Point Scale, Agree/Disagree, and Custom Method votes. The rows list the ballot items and the columns display the number of votes for each possible ranking.

Columns labeled with a percentage sign, such as Yes% or False%, display the percentage of the vote. These appear only for Yes/No and True/False votes.

**Total** displays the total of the votes. The precise meaning of total varies according to the voting method:

- For Rank Order, total is the rank sum.
- For Multiple Selection, total is the number of times the item was chosen.
- For Yes/No and True/False, total is the number of yes or true votes.
- For the remaining voting methods, total is the weighted sum.

**Mean** indicates the average ranking for each item. Usually this produces the same order as the total. Abstentions, however, affect the total but not the mean, and so the two sorting orders may differ.



**STD** indicates the standard deviation for each item that has a mean displayed. **N** indicates the number of participants who voted, excluding bypasses. "You" is an optional column that appears only if the Voter Comparison group setting is enabled. It displays how you voted on the ballot item.

**Zval** is another optional column that appears if Voter Comparison is turned on for Rank Order, 10-Point Scale, Agree/Disagree, or Custom Method votes.

The total number of voters (**N**) is displayed at the bottom of the window. If a ballot item is too long to fit in the vote matrix, you can select it and view the full text in the Selected row area.

Rank Order votes display two additional statistics at the bottom of the window:

- Group consensus measures the level of agreement among voters.
- Your agreement with the group results measures how closely your votes match the group results.

### 3. Vote Statistics

The following statistics are used on the Vote Spread window:

**Rank sum**, which determines the "total" in Rank Order votes, is calculated by multiplying the number of votes an issue receives by the weight of its position. Unlike 10-Point Scale weights, however, a ranking in the first position (i.e., the top of the list) results in the highest weight.

For example, when ranking a list of three items, the first position has the weight of three, the second has two, and so on. If two participants rank an item in first place, then the rank sum for that item is six. The rank sum is thus not directly related to the mean, because the mean is the average ranking.

**Weighted sum**, which determines the "total" in 10-Point Scale, Agree/Disagree, and Custom Method votes, gives a weight to each votes. The weight given depends on the voting method:

- For 10-Point Scale, the weighted sum is computed by multiplying the number of votes an issue receives by the weight of its ranking.  
For example, a ranking of 10 is given a weight of 10.
- For Agree/Disagree (5-point), a rating of Strongly Agree is given a weight of 5, Agree is 4, etc.
- For Agree/Disagree (4-point), a rating of Strongly Agree is given a weight of 4, Agree is 3, etc.
- For Custom Method votes, the weight given each choice is determined by the corresponding value entered in the Custom Method dialog box.

Standard deviation is a measure of the distribution of responses over the total number of responses. If all participants give an item the same rank, the standard deviation is zero. Therefore, low standard deviation indicates agreement among participants, while high

standard deviation indicates disagreement. On a standard bell-shaped curve, 95% of responses fall within two standard deviations of the mean.

**Zval** is short for Z value, a statistic representing the number of standard deviations the participant's ranking differs from the group mean, either above (positive number) or below (negative number), assuming a normal distribution. Approximately two-thirds of the group falls within one Z value from the group mean. Any Z value over 2 or below -2 can indicate a significant difference between the individual and group votes. The Z value is displayed if the Voter Comparison group setting is turned on for Rank Order, 10-Point Scale, Agree/Disagree, or Custom Method votes.

Group consensus, which is available for Rank Order votes, uses a statistic called Kendall's Coefficient of Concordance to measure the level of agreement among voters. The formula for this statistic takes the amount of variation in rank sum voting and divides it by the total possible amount of variance. The closer to 1.0 the group consensus figure is, the more homogeneous the group's ranking patterns.

Your agreement with the group results, which is available for Rank Order votes, uses a statistic called Kendall's Tau Coefficient to measure how closely your votes match the group results. The figure for individuals can range from -1.0 and 1.0. The closer to 1.0 the individual consensus figure is, the greater the agreement with the group. For example, if the group has a consensus rating of .2, and the individual consensus was .8, the group did not vote consistently but the participant's ranking closely matched the group average.

Advanced features allow participants to view the results of their vote in comparison to the group's voting patterns.<sup>1</sup>

---

<sup>1</sup> Much of the text used in this script was adopted from the help menu provided with the GroupSystems for Windows software.

### Appendix Three: Matrix of JSC Meeting Types

#### GROUP ISSUE

#### Face-to-Face Facilitation Solution

**Commitment to goals,  
purpose, objectives**

- Describe perceived lack of interest by group.
- Ask others to comment on the perceived lack of interest.
- Solicit suggestions for improving participation of group.

**Communication problems/  
Conflict between people**

*Not enough  
participation*

- Process check -- tell group what you see.
- Check for adequacy of agenda -- make sure group is addressing real task at hand.
- Ask quiet people for suggestions.

*One person  
dominates*

- Ask for others to comment on what the dominating individual is saying.
- Thank dominant individual for contributions than ask to hear from others.

**Conflict around issues**

- Describe the conflict observed.
- Ask group for solution to moving beyond perceived conflict.
- Use a thumb up/thumb down method to check for agreement.

**Creativity/ People stuck  
"In the box"**

- Comment on the perceived traditionalness of the ideas that are being put forth.
- Encourage more nontraditional new ideas.
- Specifically ask for outrageous solutions.

**Focus**

- Describe the observed lack of focus on topic.
- Ask group to come up with suggestion on how to focus discussion.
- Stop discussion and ask for group come to agreement on what focus should be.

## **GROUP ISSUE**

## **GDSS Solution**

**Commitment to goals,  
purpose, objectives**

- Process check on adequacy of agenda.
- Use Electronic Brainstorming to solicit reasons for perceived lack of commitment -- use results to open up discussion.

**Communication problems/  
Conflict between people**

*Not enough  
participation*

- Use any GDSS tools to increase contributions.

*One person  
dominates*

- Use any GDSS tools to equalize contributions.

**Conflict around issues**

- Use comment tools to ask for potential solutions/elaborations.
- Use Vote to poll for agreement -- use results to start discuss about issue at hand.

**Creativity/ People stuck  
“In the box”**

- Use Topic Commenter and specifically label topics as ideas that wouldn't work (UN-ideas), new twists on our old ways, very traditional ideas, ideas that would rock the boat, etc... any labels that might encourage divergent creative thinking.
- Use Electronic Brainstorming and encourage others to use other ideas and twist them around and resubmit.

**Focus**

- Use Topic Commentor or Categorizer. Can 'diffuse' energy by commenting on many topics or gain agreement and focus by agreeing on one topic generating comments.

## GROUP ISSUE

## Face-to-Face Facilitation Solution

### **Group Energy**

- Comment on perceived lack of energy in room.
- Ask for suggestions for increasing energy.
- Try a short break where people walk around and try to come up with ideas around the task at hand.

### **Leadership**

*Not enough--  
group drifting*

- Look for ways to reengage appointed leader of the group or ways to reach group consensus on group direction.
- Process check; tell group what you see, suggest route, or ask leader directly to step up and give guidance.

*Too much --  
leader too strong*

- Look for ways to diffuse leadership that squelches ideas from the group.
- Process check; tell group what you see -- suggest new route or ask leader directly to allow the group a few minutes to discuss the issues for themselves.

*Too many --  
how to solve "too  
many chiefs"  
problem*

- Look for ways to gain agreement on one particular course of action.
- Process check; tell group what you see, suggest new route or ask for group to agree on one course of action.

### **Organization**

*\* Organization should be less of a problem with the use of Group Support Systems because of the necessity of a preplanned agenda.*

*Inadequate  
agenda*

- Revisit purpose of meeting and use that information to construct new agenda. Gain agreement from group on changes.
- Take a short break and confer with group leader.

*Too much data*

- Nominal group technique to decide priority issues.
- Gain agreement from group on how to deal with data at a later time.

## GROUP ISSUE

## GSS Solution

### **Group Energy**

- Try Electronic Brainstorming to collect ideas.
- Try Topic Commenter to send out trivia question to bring energy level back up.

### **Leadership**

*Not enough--  
group drifting*

- Hold more extensive preplanning meetings.
- Process check on adequacy of agenda.

*Too much --  
leader too strong*

- Process check on adequacy of agenda
- Stronger reliance on GSS tools w/out as much talking.
- Facilitator should direct attention to comments from group members & direct less to leader.

*Too many --  
how to solve "too  
many chiefs"  
problem*

- Process check on adequacy of agenda.
- Stronger reliance on GSS tools w/out as much talking -- try directing attention toward data or get them to focus on specific ideas and gain consensus on those ideas.

### **Organization**

*\* Organization should be less of a problem with the use of Group Support Systems because of the necessity of a preplanned agenda.*

*Inadequate  
agenda*

- Once there is an understanding of the appropriate changes to make to the agenda, conduct the rest of the meeting in a face-to-face format or take a break and program a new agenda into the system.

*Too much data*

- Use a data reduction method like Vote, or use Categorizer to organize and/or create categories of comments.

## **GROUP ISSUE**

## **Face-to-Face Facilitation Solution**

### **Problem Solving/ Decision Making**

*Too quick to  
adopt solution*

- Question whether an adequate understanding of the problem exists.
- Ask for a devil's advocate to counter current analysis of situation or to come up with reasons why solution wouldn't work.
- Ask for participants to take a different perspective for a few minutes.

### **Time crunch**

- Remind group of agreed to ending time or comment on perceived slowness of progress.
- Ask for suggestions on how to move along more quickly.

## **GROUP ISSUE**

## **GSS Solution**

### **Problem Solving/ Decision Making**

*Too quick to  
adopt solution*

- Use Topic Commentor or Categorizer to better define problems -- ask for specific drawbacks of a solution suggested.
- Use Electronic Brainstorming and ask everyone to play devil's advocate. Use Vote to decide on any objections that really need to be discussed.

### **Time crunch**

- Use Vote to gauge effectiveness of conversation.
- Vote on importance of remaining agenda items -- decide which to drop if possible.



## **Appendix Four: Review of Sessions and Participant Feedback**

*Session participants were asked their opinion about how they perceived the session they attended. A sample of their feedback is reproduced in this appendix. Spelling and punctuation were not corrected, but names were deleted to preserve the anonymity of the group. The feedback questions were standardized a short time into the process.*

### **Meeting A**

Where did the process succeed?

The facilitators did an excellent job -- there is a lot of information to absorb.

Strong facilitation is a must for leading sessions. Facilitators must be trained in the use of the technology and facilitation skills in general to promote effective use of the technology by the participants.

It was my first exposure to group decision making software, and it was valuable in understanding the concept

expands my thoughts as to what is possible

Presented the potential of this technology to participants and the impact it can have on business productivity. The ability to generate discussions, ideas, make decisions-- all these functions are greatly enhanced with this technological capability.

More business owners/managers need exposure to this technology.

A distributed model allowing different time/different place sessions would be much more valuable to [name deleted] than the meeting room model presented

This is a wonderful lab. We appreciate your generosity and time in letting us use this and showing us this software.

Beautiful facilities. Wonderful sense of cooperation between community, business and higher education.

This would be an excellent tool to use in a brainstorming session.

With only limited exposure it is difficult to have an indepth opinion. However, from what I've seen the tool is limited in its application by requiring the same time/same place model.

Great for brainstorming - would significantly reduce time in both generation of ideas and for future reference of discussion items generated.

Where did the process fail?

The more experience and training the user has with the tool the more valuable it is. With no forknowledge and limited time for explanation, some of the applications seemed less than intuitive in their operation our group needed a pre planning session

Definitely needs to have a preview opportunity for participants to get a feel for being in a virtual office setting. Having the ability to key in at different times in a variety of different settings and locations will be a critical tool for enhancing business productivity.

The facilitators were not quite up to speed on their knowledge of the software.

### **Meeting B**

- How clearly and accurately was the information discussed?

Very clear

The program was easy to understand and use

Excellent

very clearly

Discussion thorough in regard to use of pkg.

Did not have any problem with understanding instructions or using the software.

Software is very easy to use, with the help of a facilitator. Explanations given were useful and not confusing.

The concept of groupware was clearly discussed. I would like to have learned about some of the other software designs to understand and compare the competitive advantages and disadvantages of this product.  
Clear

This is an incredible tool which I could use to enhance my business capabilities. However, typing is not everyone's strong suit therefore the key pad should be eliminated wherever possible.

**How satisfied are you with the results of the meeting?**

I learned a lot today.

The technology was exciting to use

I appreciated the software and our progress today.

The software use allowed us to participate simultaneously and allowed us to use time effectively.

Exciting for a novice in most of the areas.

Enjoyed using the technology. Didn't know anything like this existed.

Well satisfied

I was very satisfied and excited to be a part of this.

As an organization and planning tool I am satisfied with the outcome. However I think that to maximize the demonstration process two days is necessary to really take advantage of the full potential use. By the time the learning curve and discussion had taken place the session was over.

The results were not satisfactory to me, but the process was a joy, because it is so interactive.

**What changes would you make to the meeting process?**

More computers or two sessions

Have everything in this Windows format

Sharing sometimes caused complications and wasted time when classmembers raised questions about equity

Allow for another program to be available to participants use while other class participants are finalizing their scoring or work. i.e. lets play poker.

More computers, of course. More time to ask questions about the capabilities of the software.

Allow more time to work with program

Other than too many people for computers available

WOULD CHANGE NOTHING.

More computers

Need a station for every participant -- especially in a group like this.

Make it longer. Allow participants with various computer skills the time to dialogue more with the technical process, review and understand better some of the graphs and results that are presented.

Form and content are both important and neither can be accomplished well in a short time span.

I wish we'd have settled on a project this morning and spent the afternoon brainstorming our action plan.

Let's do this over 2 days next time.

**Please comment on what you think about groupware; enter applications at your organization that you think would benefit from using groupware.**

I can see how this technology could help a group reach consensus on an issue

It was very efficient. I wish more than one person could vote on a computer.

The sharing and brainstorming time was superb! The past half hour has been our most productive of all the time our group has been together.

We were able to use our best skills and build on one another's work.

Time efficient. Allows for total participation if enough computers. Reporting becomes facilitated because can quickly print and finalize.

Use the information for faster decision-making

The last part of our session seemed to be more productive when there is less talking and more in-putting.

Such a time saving device. Hopefully more people and organizations will be exposed to this soon.

Its fun to see all the comments come up so quickly and see that your own are conveyed just as fast.  
This would be very valuable with board of directors, with health professionals in grant selection. I also could see it useful with town hall type meetings.  
I like the anonimity of the software. Easy to use. I think that my [name deleted] could use something like this for the long range plan which we are developing. The process has been much, much too long because of logistical problems. We could also use this in committees for deciding on various issues. Ditto on brainstorming!  
I'd love to use it at our [name deleted] meetings.  
In general I like the concept.

I have used Lotus notes once to judge a national awards contest for the [name deleted].

I think that more individual group dynamics and computer skills must be equal to fully take advantage of the potential of this tool. Our organization already uses e-mail and chat functions for similar uses. The polling and organization capabilities are the most useful for a sense of completion and record keeping. My firm practices [name deleted] and conducts closings which could be accomplished in multiple locations easier than bringing everyone to one location at the same time.

### **Meeting C**

#### **Where did the process succeed?**

##### **EVERYONE CAN PARTICIPATE**

It was an interesting and new approach which opens a different approach to group problem solving.  
It forces individuals to respond to each issue.  
Technology for the new century used in a classroom setting  
Improvement could be made with remote group members.  
Successful in that it forms a permanent record of the case discussed in class--for future review of concensus and your own input.  
Everyone gets a chance to participate!  
Everyone should have an opinion.  
I enjoyed the exercise and hope it is used more in the future for industry and community.  
Quick, succinct participation by all students.  
It is apparent that this application, in some format, will be a part of all of our future workplaces. This helps us to recognize the worrgroup concept as a vital part of our future office places

#### **Where did it need improvement?**

Hard return on comments section to make it more readable. Comments after each question.  
Increase anonymity. Very easy to figure out who is answering what. This is not a problem in this particular group, however it may be an issue in more controversial situations.  
Format problems with the responses could either be fixed with software commands (perhaps global linewrapping) or with more familiarity on the part of the participants.  
Formating text to automatically wrap whan approaching the end of the screen.  
The system should format responses as they are submitted. It was annoying to have to search the page. The wider margins are for spreadsheet applications.  
Duplication in both typing and talking. With practice, less talking could be achieved.  
Typing text should automatic wrap  
Try using a Hypertext based format so that each step is clear to the student. Facilitator interaction was required too often.  
For Windows Literate persons, it was relatively easy however.  
A potentially very powerful tool for very complex issues!  
Ananimity helps with unforced, unpressured interaction.

#### **General comments about groupware.**

ENJOYED DOING IT BUT FOR OUR SMALL CLASS AND OUR GROUP DISCUSSIONS, PROBABLY WASN'T NECESSARY. HAD WE ALL ANSWERED AHEAD OF TIME, IT MAY HAVE MADE THE PROCESS GO BY QUICKER. I LIKED IT OVERALL.

The process was good in communicating overall results.

I like the ability to interact at my own pace. Intellectual capacity is not necessarily measured in speed of response.

Interesting approach to teaching

Interesting and could be a fun way to hold a meeting.

The technology is exciting. It is very useful for various situations.

For case review this software has pluses and minuses compared to verbal presentation in class. I can imagine other uses in which the pluses would have greatly outweighed the minuses, e.g. team building.

## **Meeting D**

### **Where did the process succeed?**

Gained input from a varied group of women.

Anonymity

The most user friendly tool I have used.

It was nice to have my opinions heard and counted.

Great for group consensus. I guess there is a way to take this phase to the next level of discussion. I would like to try that some day.

It was fun. I think it would be difficult to do this with a lot of people, but the more input, the more fun the process can be.

Gained input from a varied group of women.

Anonymity

The most user friendly tool I have used.

It was nice to have my opinions heard and counted.

Great for group consensus. I guess there is a way to take this phase to the next level of discussion. I would like to try that some day.

It was fun. I think it would be difficult to do this with a lot of people, but the more input, the more fun the process can be.

### **Where did the process need improvement?**

I see potential but until the server is faster the process is too slow.

### **General comments about groupware**

The most user friendly tool I have used.

Great tool! Especially for brainstorming if you have longer.

Very user friendly!

Love it. The wave of the future, I think. Makes surveying less painful...especially the data analysis.

Remote access please. Didn't know there was a specific brainstorm tool.

## **Meeting E**

### **From a software perspective, what did you like about the session?**

Anonymity, graphics, instant feedback--when working ...properly

Very cool. Anonymity.

ditto

anonymity and instant feedback

anonymity, rapid polling (when properly functioning)

It makes the discussion more fun to work on a computer. I also liked the anonymity.

neat software

Anonymity of inputs made it easy to provide inputs.

It was exciting to brainstorm with others at the same time, same place. And I liked the anonymity.  
This is an excellent system for use in an organization. The employee having access to the system at their leisure is good.

**From a software perspective, do you think any changes should be made, if so how?**

Maybe some sound effects...

get the bugs worked out...

improve the scoring techniques.

no glitches in voting

there are still some bugs in the system; I would concentrate on getting those out.

voting

Things were a little slow when we had to wait for the facilitator to set up the voting section. Surely this can be done faster?

The fact that we had some participants who could not figure out the difference between entering comments and new ideas suggests that there is some explanation that is lacking.

Not sure, but I believe the rating scale was not helpful. I would eliminate the final 5 ratings when drawing a conclusion.

I was entirely unimpressed with the voting. There is more calling for raw scores in the kind of information we were using.

#### **General Comments.**

I really enjoyed using the software...it's too bad it wasn't working properly this evening.

it was neat-o

could be effective if used properly.

It was fun

it worked better the first time I used this program; bugs need to be fixed

I enjoyed this

Excellent tool for easy exchange of ideas.

Very enlightening and "futuristic!"

Good learning tool

Enjoyed it!

There is too much dependence on the technical facilitator. Possibly when used on a long term basis, the people will know better how to use the system (which will help it to more effectively gather information).

#### **Meeting F**

**From a software perspective, where did the process succeed?**

A variety of ideas

In providing the means by which people can build on ideas typed in by other members

I like it, it's like being in a chat room with metrics

Fostered the organization of ideas in a uniform manner

User friendly (except for [name deleted])

allowing people to voice their opinions anonymously

less distractions

it enhanced our typing skills

A sharing of ideas

promotes various ideas from people (brainstorming)

**- From a software perspective, where did the process fail?**

None that I saw

make the exercise focus on creativity and brainstorming

A little slow at times

Gave an opportunity to those people who were not taking this program seriously, a chance to clown around

I didn't see any problems

the little black dots didn't always correspond with the terminal that created the comment  
need better terminals, screen is very bad

**Please provide any general comments about Groupware.**

good idea, we should assemble a group of students to work on ideas for the university  
understanding others in a more, relaxed way.

this would be good to use to do our group evaluations after the presentations.

I wish we had more time to bring in the graphical aspect.

excellent approach to getting numerous ideas

i want one for home

we like it! we love it! we want some more of it!

it helps get into the mind-set of others

It would be very helpful to businesses as a whole

these demonstrations should be done in smaller groups of people because these screens are too small and too blurry.

Writing too small & not clear

makes communication easier

rock and roll

advantage communication

makes life so much easier

## **Meeting G**

**Where did the process succeed?**

Faster and more flexible than the old system

Obviously, the anonymous input is valuable.

Got a lot of ideas quickly

I think it is a great piece of software. If a group uses it a number of times it probably could become a very useful analytical tool.

It was a good tool for helping a group reach some sort of consensus/discussion points.

allowing revision of ideas

adding comments to buckets, great approach

Simple to learn.

Voting options a strong feature

**Where did it need improvement?**

I don't think it is possible to really be effective with a software that is so easy that anyone can use it

The system was slow and cumbersome. It should operate on its own server.

Some sort of audible alarm that sounds when the time for any given segment is over. I noticed that no one noticed that the 10 minute time limit had expired during one of the periods when we were busy typing away!

The system was a bit tardy at times. Things took longer than they probably should

More diverse representation would have been helpful.

system slow, broke train of activity

Would help if we could easily bring up (from a menu) the questions we are addressing.

**General comments about Groupware**

This was a very effective way to collect information in a timely manner.

It kept the project focused, cutting down on time consuming debates, and freeing discussion.

I think the potential for this type of decision making and analysis in the future is absolutely enormous

Nice format. Needs continuing development.

Much improved over the DOS version but still have room to improve in speed and managerial efficiency.

Seemed to cover most of the options I wanted

## **Meeting H**

**From a Software perspective, where did the process succeed**

Resulted in the generation of substantial number of ideas  
allowed great brainstorming  
great software -- very smooth and capable  
wonderful demonstration of software-thank you  
everything worked -- for a change!  
seemed to work just fine  
It seemed to work fine, no problems  
brainstorming put into practice & made painless  
software worked -pleasant surprise

**From a software perspective, where did the process need improvement?**

can't think of a thing, the bucket system works great  
The ability to collapse ideas into broader categories that can be ranked  
is there any way to group similar comments together electronically  
Can the program sort my key words  
This time no glitches --- but notice that we resorted to consolidating items via the white board. Why  
couldn't we do the same via software? The 2 - 3 times I've led brainstorming and tried to consolidate via  
the computer system it was a mess.

**General comments about Groupware.**

it's seems awfully drab and dark in this room; is there any way to make it a little lighter in here and still be  
able to see the screen at the front?  
well done, very user friendly  
This is well suited to our program needs  
is there a Mac version  
Generally a good idea, although I am not convinced it adds much to the meeting that couldn't be done with a  
flip chart and Nominal Group Technique  
I need to be familiar with other packages to comment further  
advertise this to our local companies  
I see potential but until the server is faster the process is too slow.  
I think [name deleted] pre-work and leadership was essential for this working as well as it did

**Meeting I**

**From a software perspective, what did you like about the session?**

The range of ideas generated.  
Much more efficient and organized than the verbal free flow of ideas  
The software was very easy to work with.  
Rapid brainstorming. Rapid polling of consensus.  
Being able to scroll over the range of ideas.  
Ease of Use  
Ability to simultaneously view other inputs and add your own ideas  
I liked the objectivity and efficiency of the medium. Very friendly and attractive software.  
Went well

**From a Software perspective, do you think any changes should be made, if so how?**

Concept merger is too cumbersome and facilitator centric.  
- Get a faster server.  
Get the pentium processor, too much down time  
The dynamic renumbering at various points creates confusion.  
speed things up  
Decentralize control. Allow users to be doing one thing while facilitator does another.  
Faster server.

Mode transition is too slow and invasive to the flow of activity.  
Need faster, easier method for synthesizing idea generated during brainstorming that is not facilitator driven  
A more efficient way to regroup. Software should enable people to enter groupings on their machine and then let system automatically reclassify those where there is consensus.

#### **General Comments**

I enjoyed the session.

Went fairly well; if system were faster it would have gone a little more smoothly; a little continuity was lost due to slowness; results seem useful.

This was a good session, and generated much information

I enjoyed the experience very much. It removes the emotionalism of face to face arguments. It also allows for people to be candid and direct.

Comfortable, easy to express ideas

The session was useful. It takes time for a group to learn how to work together in this modality.

we should have done this earlier, and we should do it more often. Thanks for a wonderful session. [name deleted]

#### **Meeting J**

##### **From a software perspective, where did the process succeed?**

Ease of use

ease and quickness of compiling data

I may be tired but the writing beside the bucket is somewhat out of focus.

ability to compile information quickly and anonymously for discussion

quick

Rapid correction/editing capabilities

in giving the opportunity to express thoughts in an easy way

Ease of use, clear visual to use for editing thoughts, excellent process sequence

bigger icons for late night users

information quickly and easily projected on screen

can instantly see everyone's responses

##### **From a software perspective, where would you make improvements?**

larger letters

seemed fine from this limited use

Expand screen where comments appear fully across screen

Lack of use of computers, do not feel qualified to suggest improvements

screen was hard for me to read

Allow visuals to show individual remarks vs group remarks

Allow comparative screens to show voting results vs original rankingEase of use

#### **General comments.**

I think the process and the software worked very well. Keep using it.

great tool. Application opportunities are tremendous.

very enjoyable exercise, ease of idea development and consensus

program is very easy to use for successful group dynamics

most helpful exercise

enjoyed using the equipment and found it very easy to adapt to

#### **Meeting J**

##### **From a software perspective, where did the process succeed?**

In every category.

This software seems to be very interactive and thought provoking.

putting it all together/ menu format most helpful

At this time I personally can't see the need for changes



Allowing the concurrent entry of ideas along with anonymity.  
I think the software is very well thought out and user friendly.  
This was a very worth while exercise and should work well in other topic areas  
helps promote teamwork

**From a software perspective, where would you make improvements?**

Allowing more than one person to edit at a time.  
Don't see a need for changes.  
instructions need to be clearer/ allow for corrections

**General comments.**

Good Process to bring diverse group together  
Very informative, enjoyed the class, it's late, good night!  
This is a great program and we appreciate the opportunity you provided us. Thank you!!!  
This process is not as interactive when comparing it to a non-computer based program. interaction between participants is limited because the computer is in the way. We need more communication as a team not with a computer  
promotes teamwork  
helpful/ good way to do this sort of thing.  
Excellent way to spend the evening! Thank you.

**Meeting K**

**From a software perspective, where did the process succeed?**

Easy to understand and operate.  
Allowed each participant to work simultaneously and anonymously  
overall a good program  
expedited information from all participants  
My bucket didn't tip when i clicked on it as the instructions stated. Otherwise good  
Excellent in getting input from everyone before starting the discussion  
i believe you can never be too user friendly so keep trying.  
The information was usefull in keeping everyone on the same task (page)  
the program promoted free expression of ideas not because of ananymity but because writing has always facilitated freedom of thought and expression.

**From a software perspective, where would you make improvements?**

Software was user friendly, can't identify any improvements at this time  
You're asking me? I am not qualified to answer this question with a "qualified" answer!  
Can't think of any  
The only improvements could be in the area of the add Idea screen. If you double click on the bucket you lose the add idea screen. If a get could be installed that would automatically bring up the add idea screen then that would be a benifit to the novice user.

**General comments.**

I think this is an excellent tool for [name deleted] to us this in their goal setting workshops for the budget year  
The ranking process is helpful to see where we stand as a group  
Excellent tool for facilitating dialogue without unnecessary confrontations  
This is an excellent tool that could be used to take on the "road". By this to take to [name deleted] in order to help them develop future directions for their [name deleted]  
Easy to use and understand  
Good session! Many good ideas surfaced.  
This S/W should be marketed to the [name deleted]  
Bucket tipping was an excellent visual aide.  
This was an enlightening experience.

## **Meeting L**

### **From a Software perspective, where did the process succeed?**

Ability to have input from all members which was anonymous was very helpful

Allowed open communication between participants

Ideas were discussed fairly

No suggestions.

Excellent way to communicate in a group setting.

Interesting to see that the group as a whole realizes the same problems.

able to see our issues are the same

Encouraged us to communication.

### **From a software perspective, where did the process fail?**

Software does not allow to uncombine ideas that have been merged

No suggestions.

Instructions took too long

Introduction should be kept brief, and workshop promptly started.

Did not fail

### **Please provide any general comments about Groupware.**

I think this is a great tool for problem-solving issues within a company.

I think the software is very beneficial.

this seems to be a positive tool.

Great format and ideas that will be very beneficial for future use

The session was very informative

The sessions was informatiive.

Wonderful

This was a great idea

## **Meeting M**

### **From a software perspective, where did the process succeed?**

I was overall satisfied with the software used in the process.

Displaying others comments.

This process will only succeed if the comments that we made are read, considered and acted upon. If they are not considered seriously, then this whole process is a failure and a waste of time.

The software enabled everyone to have an active voice.

Recording comments for future reference.

Who will see comments?

This is a good way to share multiple ideas simultaneously.

Yes!

Is that really what you think is going on?

We did not have to listen to educators on their soap box

YOU MUST BE A FACULTY MEMBER

it is not polite to yell

### **From a software perspective, where did the process fail?**

The software seemed adequate. Not qualified to speculate with regard to this question any further.

Lost the human interaction normally experienced when discussing issues face to face

Yes, but many more ideas can be shared in a lot less time this way.

It does not seem to have any particular problems from my perspective.

No methods to set a time limit for each question. To answer someone's comment, the procedure is not automatic enough.

I find this a somewhat strange way to communicate.

**Please provide any general comments about Groupware.**

Users should be separated/partitioned.

Quite good program but needs some improvements.

The person using this lab should be made aware of the fact that they are participating in someone's "scholarly endeavor". They should also be given the opportunity (several weeks in advance) to read any published literature which the organizers of this experiment have used to design, prioritize and evaluate the questions posed to the participants. The human subjects committee should have knowledge of these groups.

**Meeting N**

**From a software perspective, where did the process succeed?**

This is my first time on this type of procedure. I find it fascinating and extremely easy to use.

Gathers a lot of information

Same here.

An easy way to gather comments.

**From a software perspective, where did the process fail?**

I really don't have enough experience to be able to answer this question accurately.

Highly redundant process with information overload.

I think the redundancy was due to the design of the questions, not the software.

Takes too much time. I don't see the real advantage of an oral exchange other than a real time record.

We did not really take advantage of all the features of this software.

Did not see enough of the system to properly respond to this question.

**Please provide any general comments about Groupware.**

It seems to make it easier to state how you feel about a subject or problem without the fear of retaliation.

The real improvement would be able to reduce the redundancy as the process proceeds.

I have not really seen the power of this software from this exercise.

Need to learn more with other aspects of the system to comment on this system.

**Meeting O**

**From a software perspective, where did the process succeed?**

Got things out in the open. And in writing (kind of). Anonymity (kind of) might have been a plus. But I still think a discussion face-to-face would have been better.

I liked it. On such a sensitive topic, face-to-face interaction may have caused some problems. This way, people could say what they wanted to without fear. It was fun too.

I agree - a discussion would have been more productive and FAR faster. I resent the amount of time this has taken. Have we really said enough that's new to justify the amount of [name deleted] time expended on this?

Anonymity has its benefits and its problems. For the most part, it succeeded here in allowing people to speak freely. I liked seeing responses to what I had written and not worrying that others would judge me based on those comments.

I got to hear comments from others which were similar to mine, when I thought I was the only one who thought this way.

I liked the anonymity, but I distrust it. If I can't say what I need to say without being anonymous, I suspect something is wrong with what I have to say. I think people should be encouraged

1. to take responsibility for their opinions, and
2. take responsibility for communicating them to others in a decent way.

both these things are necessary. I bet you are tenured!

OOOPS. i did not answer the question. common problem for me.

This way, nontenured and tenured faculty were able to comment freely. On topics like these nontenured faculty are left out and for good reason, they are afraid to speak their minds for fear of being judged by more powerful colleagues.

The bigger the group, the better.

Ditto all of the above: I liked the anonymity, but I would not have minded saying what is said here in open face-face forum. I am opinionated and do not care if I offend people or not. I do thing [name deleted] has a bright future in research if some things change.

#### **From a software perspective, where did the process fail?**

Difficult, for this beginner, to follow other people's comments. Lacks the quickness of a good conversation. The Lock feature (by which only one person at a time can respond to a posting) is no good.

I enjoyed it.

Need a way to indicate additions. Some sign in the margin to show that there's been something added. I wasted too much time reading over material looking for the comments.

Changing this would be a major improvement

This is not exactly a failure, but it is difficult to see when a comment has been added. All you need is a notation in the comments section each time someone adds something.

Also, the screen flashes and scrolls when a comment is added. This is very disturbing to the eye and made me lose my place several times. Perhaps another method of indicating that a comment has been submitted. If there was a way that we could do it on our own time without having to be tied down to certain time schedule, this would be great. In fact, I really like.

difficult to figure out what was added. might highlight the material being added.

difficult to scroll back and forth and find thing.

It was OK. I thought the process was enjoyable even fun at times.

a little too openended? i have little sense of accomplishment, but maybe that's okay. it did seem, however, somewhat like a bad meeting. it did not feel like good conversation, where there is a back and forth and where you can watch the other person, or persons, and where the sharing is not simultaneous. the simultaneity and anonymity of comment is sort of counterproductive.

#### **Please provide any general comments about Groupware.**

Can it be used for writing classes? That is, can an essay be loaded up and can students use the chat box to make comments?

I would do this again. I know others may not, but I thought this was helpful.

Great start !

Might be nice to be provided with a summary of what went on

I liked it too. I bet all the "likers" are untenured!

Now why would the "likers" be untenured. Because we are more open minded.

I would also do this again. I hope the software can help with the overall problem at [name deleted] regarding research. After all, I came to this meeting with the expectations of airing my views on the future of research at [name deleted]. Someone had better read this stuff.

## **Analysis of Session Feedback Collected at Meetings June 1995 - May 1996 at RICIS**

Fifty seven meetings were held in the Group Support Systems Research Laboratory at RICIS. These sessions can be broadly divided into two segments:

- 1. External Groups (from business, government and professional organizations)**
- 2. University of Houston - Clear Lake:**
  - The School of Business,**
  - Other groups within the university.**

### **External Groups**

There were nine meetings held during the period between June 1995 and May 31, 1996. The session feedback results convey an overall appreciation of the groupware process. Other features that participants thought were advantageous were, the ability to build on one another's work, the ability to make the decision making process faster, anonymity and ease of use of the system. There were requests to install more terminals within the facility.

### **School of Business**

The School of Business used the GSS lab in their classes and partially funded a student to assist with the sessions.

Twenty four meetings were held during the period specified above.

Advantages participants identified included: the ability to engage in different approaches to group problem solving; participation extending to every participant; avoiding the meeting being dominated to a few members; allowing for a permanent record of all meeting data; the ability to collapse ideas into broader categories that can be ranked; and, stressed repeatedly, the anonymous feature of the system.

Disadvantages identified included: the network being slow; too much dependence on the technical facilitator; and the potential for lack of anonymity when typing in comments, i.e., that the person sitting next to them could see what they typed in.

### **Other groups within the University**

There were twenty four meetings. A University wide survey regarding the future of academic activities of UHCL was conducted over a period of three months. Training in the use of Group Systems for Windows was provided for employees of UHCL. Both these activities were carried out through a Total Quality Management (TQM) grant.

Some participants compared the windows version that was used, with the DOS version and expressed the view that the windows version of Group Systems was a better, improved version. They felt it was more user friendly and allowed for open communication between participants. Overall these participants felt that the voting options, the anonymous feature of the system and ability of rapid polling were definite advantages of the system.

Dealing with disadvantages, the participants felt that the system was slow, and a solution for this problem was put forward to obtain a faster server. Some participants felt that the use of the system limited human interaction. One comment by a user expressed the idea of using partitions to separate the participant terminals and enhance the anonymous feature of this system.

Analysis of the GroupSystems for Windows tools used:

<b>Tool</b>	<b>Number of times used</b>
Vote	62
Categorizer	55
Topic Commenter	47
Survey	18
Group Outliner	4
Electronic Brainstorming	3

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